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ASTRONOMICAL AND METEOROLOGICAL

OBSERVATIONS

MADE AT THE

RADCLIFFE OBSERVATORY,

OXFORD,

IN THE YEAR 1856.

UNDER THE SUPERINTENDENCE OF

MANUEL J. JOHNSON, M.A.

RADCLIFFE OBSERVER.

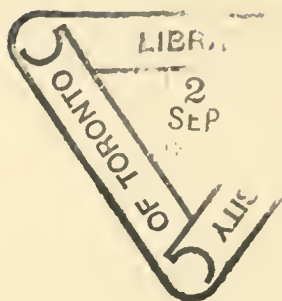
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INTRODUCTION

TO THE

ASTRONOMICAL OBSERVATIONS.

The Transit Instrument.

THE Transit Instrument has an object glass of 4 inches clear aperture, with a focal length of 8 feet. The magnifying power of the Eye-piece, generally used, is about 100. The Instrument is fully described in the 4th Vol. of the *Radcliffe Observations*.

The observations were made by Mr. Pogson.

The 1st column of the diary contains the reference number to the foot notes of each page.

The 2d contains the date of observation.

The 3d contains the names, or other designations of the Stars observed. Well-known proper names have been preferred to any other appellation.—Bayer's Greek letters have been used next in order of preference;—then, Flamsteed's numbers prefixed to the name of the Constellation.

Stars from the *Catalogues of Groombridge and the British Association* are distinguished by their numbers in those Catalogues with the affix Gr. or B.A.C.;—those from Struve's *Catalogus Novus*, (*Dorpat*, 1827,) by S. with the ordinal number in that Catalogue;—those from Argelander's and Bessel's *Zones*, by A.Z. and B.Z.;—and those in *Piazzi's Catalogue*, by P. followed by the hour of R.A. and the ordinal number in that hour. When Lalande or Weisse are the authorities, their names are generally printed in full; sometimes W. has been used to designate Weisse.

Stars which do not occur, or which have not been identified in any of the above Catalogues, are designated by their approximate N.P.D.—The designations given in the *Nautical Almanac* are adopted in all cases.

The 4th column shows the number of wires over which a Star was observed when the observation was incomplete.

The 5th column gives the observed Transit, reduced to the Mean of the wires.

The same system has been in use since 1843. It contains 7 vertical, and 2 horizontal wires; the latter are placed about 30° apart, and the stars are made to pass between them.

Besides the 7 fixed vertical wires, there are 2 micrometer wires, which are used only for determining the Collimation-error.

The observations are all referred to the imaginary line passing through the mean of the 7 wires. To incomplete observations, over wires equidistant from the centre, corrections are applied to reduce them to the mean of 7. If not equidistant, each wire is reduced separately, as follows.

Stars within 10° of the Pole

$$\text{Sin Reduction} = \text{Sin Equatorcal Interval} \times \text{Sec Dec.}$$

Stars more than 10° from the Pole

$$\text{Reduction} = \text{Equatorcal Interval} \times \text{Sec Dec.}$$

The Sun was not observed during the year.

For reducing incomplete observations of the Moon, Mr. Airy's convenient formula is used.

$$\text{Reduction} = \frac{3600 + 1}{3600} \times \frac{\text{Sin Moon's Geocentric Z.D.}}{\text{Sin Moon's Apparent Z.D.}} \times \text{Sec Moon's Geocentric Dec.}$$

1, being the Moon's hourly retardation in Right Ascension.

The 6th column contains the sum of the corrections, to be applied to the observed Transit, on account of Level, Collimation, and Meridian errors.

The LEVEL-ERROR is found by a hanging Level, furnished with an ivory scale divided to $0^s.10$ of time, or $1''5$ of arc.

At every examination of the axis, the Level is reversed at least 4 times, frequently oftener. The readings of the scale at both ends of the bubble being taken, and considering the readings at the west end +, their algebraical sum divided by twice the number of reversions, if the diameters of the pivots be equal, will be the inclination of the line passing through the pivot-centres.

No sensible difference has been detected in the size of the pivots, and their figure too, as far as the Level is a test, appears to be perfect.

The correction applied to an observed Transit, on account of Level-error, is

$$i \frac{\cos (\phi - \delta)}{\cos \delta}$$

where i , is the inclination of the Axis, as shown by the Level; ϕ , the Latitude; δ , the Declination of the Star, considered negative when South, or below Pole.

The Level-errors, during the year, will be found, among the other elements of Reduction, at pp. 69, &c.

The COLLIMATION-ERROR of the centre wire is determined by means of two terrestrial marks, seen through lenses, fixed to stone slabs inserted into the walls, at the north and south openings, of the Transit room.

The north mark is about 180 feet distant from the Observatory, the south one, about 300 feet

To determine the Collimation-error, the angular distances of these marks, from the centre wire, are measured by one of the micrometers, in reverse positions of the axis. Then, if e , w , be the sums of the readings of the micrometer, (expressed in *time*,) accordingly as the Lamp is *east* or *west*, when the micrometer wire bisects the marks, and k , the reading when it coincides with the centre wire,

$$\frac{e + w}{4} - k$$

is the Collimation-error of the centre wire. To this quantity, $+ 0^s.013$ is applied for Diurnal Aberration, and $\mp 0^s.050$, accordingly as the Lamp is *east* or *west*, to obtain the Collimation-error, of the line passing through the mean of the 7 wires.

The correction on account of the Collimation-error is

$$\pm c. \sec \delta$$

c , being the corrected error, which will be found at pp. 69, &c. where $+$ shows that the mean of the wires is *east* of the true line of Collimation.

The MERIDIAN-ERROR was determined by pairs of Stars, within 6° of the Pole, observed at opposite culminations. The mean R.A. of these Stars will be found in the Catalogue at pp. 63, &c.

Let a , represent the apparent R.A. of the Star *above* Pole; a' that of the Star *below* Pole, $+$ or $- 12$ hours; and let $\Delta = a - a'$; then, let

α, α' represent the observed transits of the two Stars, the latter corrected for clock-rate, if necessary, and let $\Delta' = \alpha - \alpha'$, then

$$\text{Meridian-Error} = \frac{\Delta - \Delta'}{n - n'}$$

n, n' being the Meridian factors of the Stars *above* and *below* Pole, respectively, derived from the expression

$$\frac{\sin(\phi - \delta)}{\cos \delta}$$

δ , being negative when the Star is *below* Pole.

The Meridian-errors during the year will be found at pp. 69, &c. where + shows that the deviation, from the meridian, of the imaginary line passing through the mean of the wires, is *east*, when the telescope points *south*.

The 7th column contains the adopted Clock-corrections, obtained from the Clock-errors in the 9th column.

The reductions to Mean Right Ascension are given in the 8th column. Those of Stars in the Catalogue of the *Nautical Almanac* are taken therefrom; otherwise they have been calculated by means of constants, taken from the *British Association Catalogue*, or computed from formulæ at p. 399 of the *Nautical Almanac* for 1856, used with Log. A, B, C, D, published annually in that work.

The 9th column contains the Clock-errors, found from the Stars in the Catalogue at pp. 63, &c.

The Clock-errors given by Meridian-error Stars (distinguished by a *) are also inserted in this column, for the purpose of showing the state of the Meridian adjustment.

A table of Clock-errors and rates will be found at pp. 75, &c. The adopted rates were deduced by comparing the Clock-error on any given day with those of the nearest day preceding, and following that on which the observations were made, allowing to each result thus obtained a weight inversely as the number of intervening days.

The Clock is Dent, No. 1317.

The 10th column contains the Mean Right Ascensions of the Stars, and the Geocentric Right Ascensions of the centre of the Moon, the only planetary body observed during the year. When only one Limb was observed, the adopted time of passage of the semi-diameter, will be found among the foot notes.

Some notices will be found among the foot notes, of the relative positions of double Stars, when they happen to have come under

observation. The usual notation has been retained to mark the quadrant, in which the unobserved Star is situated, with regard to its companion. When these symbols are accompanied by figures, those which precede, mark the estimated difference of N.P.D.: and those which follow, the difference of R.A. It is to be remembered, that these notices refer to the *real* positions, *not* as they appear in an inverting telescope.

The Meridian Circle.

The MERIDIAN CIRCLE, made by Jones, is 6 feet in diameter, and carries a telescope, of the same length, provided with an object glass of 4 inches clear aperture. The magnifying power employed is 115. There are 4 micrometer microscopes, placed 90° apart, round the circumference of the Circle, which are always employed.

A fuller description of the Instrument is given in the 1st Volume of the *Radcliffe Observations*.

The observations were made by Mr. Quirling.

The 1st and 2d columns contain the reference number to the foot notes, and the date of observation.

The 3d, 4th, and 5th columns show the state of the Barometer, and Thermometers, which were compared and found to agree with those formerly at the Royal Society. (*Radcliffe Observations*, Vol. I. p. xix.)

The 6th column contains the names of the Stars. The same rules, with regard to nomenclature, were observed, as were mentioned under the head *Transit Instrument*.

The 7th column gives the mean Circle reading by the 4 microscopes. The observations are all reduced to the Meridian.

As a general rule, in reading off the microscopes, the point of intersection of the cross-wires is brought upon the division next *below* the Zero (care being taken always to turn the micrometer screw in the same direction), unless the Zero happens to be within *one minute* of the division *above*; then that division is used. In other cases, when the division *above* was employed, notice is given in the notes.

The observations are corrected for the errors of *Run* of the microscopes. The adopted corrections will be found at the foot of each page, and a general table of them is given at p. 132. The quantities given are for angles of $5'$. For any less angle, n , the numbers must be diminished in the proportion $5 : n$.

Our practice is to note the time of passage, over the centre Wire, of every Star observed; and to obviate the errors arising from any deviation of the centre vertical Wire of the Circle, from the Meridian, the Circle and Transit Clocks are regularly compared with each other, and at every observation of the Moon, and of Stars very near the Pole, the time is noted at which the observation is completed, and if this should happen not to coincide with the time of their meridian passage, corrections are applied. Those for the Moon derived from her hourly change of Declination, and those for Circumpolar Stars from the following formula.

$$\text{Reduction} = \frac{\sin 2 \text{ *'s N.P.D.}}{2} \times N,$$

where $N = \frac{2 \sin^2 \frac{1}{2} \text{ Hour Angle}}{\sin 1''}$, the expression from which Delambre's Table

of Reduction to the Meridian is computed.

The Refractions in the 8th column were calculated by the tables in the Appendix to the *Greenwich Observations* of 1853; and the results thus found were multiplied by 0.9967, in order to reduce the Constant of Refraction of the *Tabula Regiomontana*, on which the above tables are constructed, to that of the *Fundamenta Astronomiæ*, which was found (Vol. XV. pp. xxiv, &c.) to be more consistent with our own observations.

The 9th column contains the reductions to Mean North Polar Distance, computed in the same way as the reductions to Mean Right Ascension.

The Minutes and Seconds corresponding to the Mean Place of the Star, on the Circle, the Nadir Point being 210° , are given in the 10th column. The numbers which refer to the Moon, are the Circle places of her centre, as seen from the Earth's centre.

The corrections for the Moon's Parallax, the earth's ellipticity being $\frac{1}{300}$, will be found among the foot notes.

In all interpolations from the *Nautical Almanac*, the Longitude of the Observatory has been assumed $5^m 2^s.6$, West of Greenwich; this being the result of a very careful Chronometrical determination, in 1842, by the late Rev. Richard Sheepshanks.

The Nadir Point was found by observing the coincidence of the horizontal Wire, with its *reflexion* from a trough of quicksilver.

The correction $+ 0''36$, for errors of division, has been applied, as in former years. The adopted Nadir Points will be found at the foot of each page, and a general table of them is given at p. 131, where each result is the mean of 4 observations, the coincidences being made by turning the tangent screw in opposite directions.

For the purpose of deducing the Mean North Polar Distances, in the 11th column, from the corrected Circle readings, the Latitude has been assumed $+51^{\circ}45'35''2$.

Catalogue of separate results.

The mean places in the Catalogue at pp. 133—247, are transcribed from the last columns of the Diary, without any alteration. The N.P.D.'s require further correction for the changes which are found, by direct and reflexion observations, to take place in the Zero point in different positions of the Telescope.

The same corrections continue to be used which were found in the discussion of this subject in *Rade. Obs. Vol. XV.* p. xviii, &c. These are given in the following table, where the upper sign applies to *direct* observations.

N.P.D.	Correc- tions for Zero.	N.P.D.	Correc- tions for Zero.	N.P.D.	Correc- tions for Zero.	N.P.D.	Correc- tions for Zero.
Below Pole.		°	"	°	"	°	"
0	"	20	± 0.35	40	± 0.58	105	± 0.90
48	± 0.71	15	.28	45	.63	110	.88
47	.70	10	.20	50	.68	115	.86
46	.69	5	.13	55	.73	116	.86
45	.68	Above Pole.		60	.78	117	.86
44	.67	0	.04	65	.81	118	.85
43	.65	5	.04	70	.84	119	.85
42	.64	10	.12	75	.87	120	.84
41	.63	15	.20	80	.91	121	.82
40	.62	20	.28	85	.91	122	.80
35	.57	25	.36	90	.92	123	.78
30	.50	30	.43	95	.92	124	.75
25	± 0.43	35	± 0.51	100	± 0.92	125	± 0.73

The Precessions are generally the geometrical values. In the case of stars from the Nautical Almanac, the Precessions have been taken from that work, and as these values generally include Proper Motion, they are distinguished by a * appended to the Precession. The magnitudes in the last column were estimated at the time of the observations of

position, whenever there was no visible obstruction to a correct determination. When the same star has been observed on the same night with both Instruments, the estimates are bracketted, and the first refers to the estimate made at the Transit Instrument. When a * is affixed to the number of a star in this Catalogue, it indicates that such star is not included in our Catalogue of remarkable objects, but has been observed for some other purpose.

Comparisons of the observed and tabular places of the Moon.

In the comparative table of the Moon's observed and tabulated positions, the latter were deduced from the Moon culminating list in the *Nautical Almanac*. The observed N.P.D. here given require further correction for the changes of Zero point in different positions of the telescope; which corrections are given in the foregoing table.

ERRATA IN THE RADCLIFFE OBSERVATIONS.

IN THE PRESENT VOLUME.

<i>Star.</i>	<i>Page.</i>	<i>Ref. No.</i>	<i>Column.</i>			
*.....	56	34	Star	} for 41° 3' read 49° 3'		
.....	145	160*	Mean N.P.D.			
908 B.A.C.	58	15	Reduction to Mean	4 ^s .94	12 ^s .04	
.....	...	...	Mean R.A.	} 2 ^h 49 ^m 50 ^s .03	2 ^h 49 ^m 42 ^s .93	
.....	149	221	.....		
* 2° 42'.....	59	23	Observed Transit	24 ^m	23 ^m	
.....	...	...	Mean R.A.	5 ^h 23 ^m 35 ^s .03	5 ^h 22 ^m 35 ^s .03	
22 Lyncis	86	13	Circle Reading	2'	12'	
.....	...	...	Refraction	2 ^{''} .1	1 ^{''} .9	
.....	...	...	Min. and Sec.	2' 17 ^{''} .4	12' 17 ^{''} .6	
.....	...	...	Mean N.P.D.	} 40° 12' 7 ^{''} .4	40° 2' 7 ^{''} .2	
.....	166	458	.....		
56 Cygni.....	86	20	Circle Reading	38'	35'	
.....	...	...	Refraction	583 ^{''} .9	576 ^{''} .7	
.....	...	...	Min. and Sec.	48' 22 ^{''} .3	43' 15 ^{''} .1	
.....	...	...	Mean N.P.D.	46° 33' 57 ^{''} .5	46° 28' 50 ^{''} .3	
3245 B.A.C.	87	7	Circle Reading	27'	57'	
.....	...	...	Refraction	22 ^{''} .5	23 ^{''} .1	
.....	...	...	Min. and Sec.	27' 39 ^{''} .9	57' 40 ^{''} .5	
.....	...	...	Mean N.P.D.	} 17° 46' 44 ^{''} .9	17' 16' 44.3	
.....	173	545	.....		
α Urs. Maj.	92	30	Reduction to Mean	— 9 ^{''} .0	+ 9 ^{''} .0	
.....	...	...	Min. and Sec.	39 ^{''} .4	57 ^{''} .4	
.....	...	...	Mean N.P.D.	} 27° 28' 4 ^{''} .2	27° 28' 22 ^{''} .2	
.....	180	621	.....		
* 10 ^h 24 ^m 10 ^s ..	93	27	Min. and Sec.	14 ^{''} .8	53 ^{''} .4	
.....	...	...	Mean N.P.D.	} 4° 31' 10 ^{''} .0	4° 30' 31 ^{''} .4	
.....	178	598	.....		
3 Scorpii	101	22	Star	3 Scorpii	2 Scorpii	
32 Vulpeculæ..	112	33	Circle Reading	16'	14'	
.....	...	...	Min. and Sec.	16' 56 ^{''} .9	14' 56 ^{''} .5	
.....	...	...	Mean N.P.D.	62° 31' 21 ^{''} .7	62° 29' 21 ^{''} .3	
ε Cephei	116	3	Circle Reading	33'	34'	
.....	...	...	Min. and Sec.	1 ^{''} .0	59 ^{''} .9	
.....	...	...	Mean N.P.D.	33° 41' 23 ^{''} .8	33° 40' 24 ^{''} .9	
8156 B.A.C.	121	12	Reduction to Mean	12 ^{''} .2	26 ^{''} .5	
.....	...	...	Min. and Sec.	59' 4 ^{''} .8	58' 50 ^{''} .5	
.....	...	...	Mean N.P.D.	} 58° 15' 20 ^{''} .0	58° 15' 34 ^{''} .3	
.....	244	1334	.....		

The minus sign of constant b' is omitted in the B.A.C.

IN THE PRESENT VOLUME, (continued.)

<i>Star.</i>	<i>Page.</i>	<i>Ref. No.</i>	<i>Column.</i>	
8147 B.A.C.	123	28	Star	for 8147 B.A.C. read 65 Pegasi
.....	244	1333	The observation of N.P.D. on Nov. 14, belongs to 65 Pegasi, the approximate R.A. of which is $23^h 15^m 31^s$, and precession in N.P.D. + $19''.68$. The approximate N.P.D. of 8147 B.A.C. is $70^\circ 14'$	
τ Andromedæ ..	124	31	Circle Reading	for $6'$ read $5'$
.....	...	...	Min. and Sec.	$6' 11''.3$ $5' 10''.9$
.....	...	...	Mean N.P.D. }	$50^\circ 8' 13''.5$ $50^\circ 9' 13''.9$
.....	142	120	.....
39 Arietis	127	6	Circle Reading	$59'$ $54'$
.....	...	...	Min. and Sec.	$58'$ $53'$
.....	...	...	Mean N.P.D. }	$61^\circ 16' 11''.0$ $61^\circ 21' 11''.0$
.....	148	212	.....
ϵ Leporis	130	13	Circle Reading	$43'$ $44'$
.....	...	...	Refraction	$209''.9$ $209''.6$
.....	...	...	Min. and Sec.	$39' 21''.9$ $40' 20''.9$
.....	...	...	Mean N.P.D. }	$112^\circ 35' 2''.9$ $112^\circ 34' 3''.9$
.....	159	360	.....
γ Andromedæ (1st)	144	155	The reflexion observations assigned to this star seem to belong to the second star, and have been so considered in the final catalogue, page 254.	
A.Z. clxxxix. 94	186	702*	Precession in N.P.D.	insert + $19''.82$
3 Scorpii	198	850	The observation of N.P.D. on July 2 belongs to 2 Scorpii, the approximate R.A. of which is $15^h 44^m 58^s$, and the precession in N.P.D. + $11''.14$.	
36 Ophiuchi (2d)	204	918	Precession in N.P.D.	for $4''.58$ read $4''.64$
* $0^\circ 42'$	206	939	Precession in R.A.	$107^s.474$ $105^s.474$
10 Ceti	1*	19	Mean R.A.	$0^h 19^m 36^s.61$ $0^h 19^m 26^s.61$
2371 B.A.C.	15*	489	Mean R.A.	$7^h 6^m 41^s.10$ $7^h 6^m 40^s.10$
89 Leonis	22*	731	No. of Obs. in R.A.	3 5

IN VOLUME XVI. 1855.

α Urs. Maj.	29	7	Reduction to Mean	for $1^s.25$ read $0^s.32$
.....	...	...	Mean R.A. }	$10^h 54^m 43^s.98$ $10^h 54^m 44^s.91$
.....	111	421	.....
.....	161	569	.....	$10^h 55^m 2^s.86$ $10^h 55^m 3^s.80$
δ Andromedæ ..	35	16	Reduction to Mean	$4^s.52$ $2^s.66$
.....	...	...	Mean R.A. }	$0^h 31^m 33^s.13$ $0^h 31^m 34^s.99$
.....	78	21	.....
.....	145	29	.....	$0^h 31^m 49^s.07$ $0^h 31^m 50^s.93$
12 Eridani	41	22	Reduction to Mean	$3^s.59$ $3^s.25$
.....	...	...	Mean R.A. }	$3^h 5^m 54^s.34$ $3^h 5^m 54^s.68$
.....	87	136	.....
.....	150	178	.....	$3^h 6^m 7^s.05$ $3^h 6^m 7^s.39$

IN VOLUME XVI. 1855. (continued.)

<i>Star.</i>	<i>Page.</i>	<i>Ref. No.</i>	<i>Column.</i>			
σ Scorpii	59	23	Refraction	for	226°.7	read 244°.0
.....	...	...	Min. and Sec.		18°.0	0°.7
.....	...	...	Mean N.P.D.	}		
.....	120	540	.....		115° 14' 6".0	115° 14' 23".3
.....	167	792	.....		115° 14' 53".0	115° 15' 10".3
χ Cygni	62	27	Star	}		
.....	64	11	.....		χ Cygni	17 Cygni
.....	130	650	.....		
.....	171	923	.....		
.....	...	...	Magnitude		Var.	5.2
595 Gr.	87	131	Precession in N.P.D.		14°.34*	14°.26
.....	150	172	Mean N.P.D.		5° 35' 42".2	5° 35' 43".0
.....	...	...	Precession in N.P.D.		14°.35	14°.19
.....	181	33	.....		14°.34* & 14°.27*	14°.18* & 14°.11*
β Ceti	146	36	Mean R.A.		0 ^h 36 ^m 33 ^s .32	0 ^h 36 ^m 33 ^s .62
* 105° 2'	152	255	Mean R.A.		4 ^h 53 ^m 13 ^s .52	4 ^h 53 ^m 14 ^s .02
2883 B.A.C.	157	435	Mean R.A.		8 ^h 27 ^m 22 ^s .57	8 ^h 27 ^m 23 ^s .57
3831 B.A.C.	161	577	Mean N.P.D.		69° 6' 13".7	69° 6' 16".7
3917 B.A.C.	162	594	Mean R.A.		11 ^h 24 ^m 10 ^s .50	11 ^h 24 ^m 11 ^s .50
33 Boötis	166	732	No. of Obs. in R.A.		1	3
* 4° 43'	167	777	Precession in R.A.		+ 10 ^s .562	- 10 ^s .562
27 Draconis <i>f</i> ..	168	825	Mean N.P.D.		21° 46' 31".4	21° 46' 32".6
ζ Cygni	174	1015	Mean N.P.D.		60° 20' 41".3	60° 20' 43".3
51 Pegasi	176	1107	Mean N.P.D.		69° 58' 53".5	69° 58' 51".8
2006 Gr.	184	101	Mean R.A.		13 ^h 12 ^m 11 ^s .76	13 ^h 12 ^m 11 ^s .08
* 4° 17' .....	...	116	.....		16 ^h 6 ^m 36 ^s .73	16 ^h 6 ^m 35 ^s .73
* 5° 6' .....	...	118	.....		16 ^h 7 ^m 19 ^s .78	17 ^h 7 ^m 19 ^s .78
2283 Gr.	185	114	Constant <i>c'</i>		1.9063	1.0963

IN VOLUME XV. 1854.

χ Cygni	36	24	Star	}		
.....	38	2	.....		for χ Cygni	read 17 Cygni
.....	216	987	.....		
.....	264	692	.....		
.....	...	...	Magnitude		Var.	5.2
.....	282	43	Mean Place 1860		19 ^h 41 ^m 7 ^s .56° 36'	19 ^h 45 ^m 11 ^s .57° 27'
6800 B.A.C.	264	694	Magnitude		Var.	7.0
595 Gr.	273	33	Precession 1855 & 1860		14°.34* & 14°.27*	14°.18* & 14°.11*
2006 Gr.	276	101	Mean R.A.		13 ^h 12 ^m 11 ^s .76	13 ^h 12 ^m 11 ^s .08
* 4° 17' .....	...	116	.....		16 ^h 6 ^m 36 ^s .73	16 ^h 6 ^m 35 ^s .73
2283 Gr.	277	114	Constant <i>c'</i>		1.9063	1.0963

IN VOLUME XII. 1851.

3744 Gr. (1st). 331 2015 The observation of this star belongs to 3744 Gr. (2d).

IN THE METEOROLOGICAL PART OF THE PRESENT VOLUME.

	<i>Column.</i>	<i>Line.</i>			
Page [xxxv]	...	4	<i>for</i>	N to ENE	<i>read</i> N to E
...	...	5		E to SES	E to S
[2]	4 hour	Mean		7.21	7.24
...	...	Equivalent		.392	.389
[7]	22 ...	day 27		2.70	3.70
[13]	2 ...	Equivalent		.592	.582
[19]	For the values given in the line F ^o substitute the following, (see p. [xvii].)				
	0 ^h 36.7	6 ^h 34.9	12 ^h 40.1	18 ^h 39.8	
	2 36.1	8 36.2	14 41.1	20 38.5	
	4 35.3	10 38.5	16 40.6	22 37.4	
	Mean 38.0				
[23]	20 hour	F ^o	<i>for</i>	4.71	<i>read</i> 47.1
[26]	10 ...	...		64.0	63.0
[32]	10 ...	...		50.3	52.3
[57]	{ Amount } { of Cloud }			0.8	8.0
	day 14				

OBSERVATIONS

WITH THE

TRANSIT INSTRUMENT.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Jan. 10	α Ceti		2 54 24.90	- 0.18	+ 20.91	- 0.17	- 20.82	2 54 45.46
2		14 Eridani		3 9 16.57	- 0.25	20.91	- 0.36		3 9 36.87
3		α Persei		3 13 42.83	+ 0.18	20.92	- 0.12	20.81	3 14 3.81
4		1089 B.A.C.		3 22 49.13	+ 0.16	20.92	- 0.19	20.90	3 23 10.02
5		τ^5 Eridani		3 27 5.66	- 0.33	20.92	- 0.60		3 27 25.65
6		1121 B.A.C.		3 30 56.50	- 0.39	20.92	- 0.75		3 31 16.28
7		14 Tauri		3 35 7.46	- 0.08	20.92	- 0.29		3 35 28.01
8		π Eridani		3 39 0.00	- 0.27	20.92	- 0.53		3 39 20.12
9		31 Tauri u^2		3 43 59.41	- 0.17	20.92	- 0.40		3 44 19.76
10		τ^9 Eridani		3 53 27.30	- 0.35	20.92	- 0.75		3 53 47.12
11		* 70° 29'		3 57 33.53	- 0.08	20.92	- 0.42		3 57 53.95
12		48 Tauri		4 7 15.66	- 0.11	20.92	- 0.47		4 7 36.00
13		55 Tauri		4 11 20.14	- 0.10	20.92	- 0.49		4 11 40.47
14		70 Tauri		4 17 4.10	- 0.11	20.92	- 0.52		4 17 24.39
15		79 Tauri b		4 20 26.02	- 0.12	20.93	- 0.54		4 20 46.29
16		1404 B.A.C.		4 24 24.67	- 0.40	20.93	- 0.99		4 24 44.21
17		v^6 Eridani		4 27 31.94	- 0.39	20.93	- 0.99		4 27 51.49
18		53 Eridani		4 31 15.29	- 0.28	20.93	- 0.77		4 31 35.17
19		58 Eridani		4 40 48.44	- 0.30	20.93	- 0.83		4 41 8.24
20		1510 B.A.C.	5	4 46 14.69	+ 0.88	20.93	- 2.39		4 46 34.11
21		ζ Tauri		5 28 42.20	- 0.07	20.94	- 0.82	21.16	5 29 2.25
22		* 5° 16' S.P.	3	5 36 22.30	- 3.48	20.94	+ 11.42	* 20.99	5 36 51.18
23		1004 Gr.	3	5 48 21.12	+ 5.24	+ 20.94	- 18.42	- * 20.97	5 48 28.88

LAMP EAST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Jan. 12	7 ^s Eridani	6	3 27 5.54	- 0.38	+ 21.21	- 0.58		3 27 25.79
2		19 Tauri		3 36 17.83	- 0.09	21.22	- 0.27	- 21.14	3 36 38.69
3		7 ⁿ Tauri		3 38 35.01	- 0.10	21.22	- 0.28	21.23	3 38 55.85
4		32 Eridani (2d) ..		3 46 43.14	- 0.26	21.22	- 0.47		3 47 3.63
5		7 ¹ Eridani		3 50 58.45	- 0.33	21.22	- 0.58	21.23	3 51 18.76
6		41 Tauri		3 57 25.96	- 0.07	21.22	- 0.39		3 57 46.72
7		0 ² Eridani		4 8 18.40	- 0.28	21.22	- 0.60		4 8 38.74
8		57 Tauri		4 11 30.74	- 0.16	21.22	- 0.49		4 11 51.31
9		ρ Tauri		4 25 20.24	- 0.15	21.22	- 0.55		4 25 40.76
10		89 Tauri		4 29 34.54	- 0.15	21.22	- 0.57		4 29 55.04
11		1450 B.A.C.		4 33 47.48	- 0.40	21.22	- 0.90		4 34 7.40
12		1490 B.A.C.		4 42 21.57	+ 0.01	21.22	- 0.69		4 42 42.11
13		* 105° 0'		4 51 42.56	- 0.33	21.22	- 0.83		4 52 2.62
14		12 Antige		5 5 27.30	+ 0.10	21.22	- 0.97	21.29	5 5 47.65
15		7 Orionis		5 10 16.83	- 0.28	21.22	- 0.81		5 10 36.96
16		* 0° 42' .....S.P.	3	5 18 40.32	-25.09	21.23	+76.92	* 20.30	5 19 53.38
17		* 2° 42'	3	5 22 28.08	+ 6.16	21.23	-19.36	* 20.50	5 22 36.11
18		1796 B.A.C.		5 33 40.33	- 0.12	21.23	- 0.84		5 34 0.60
19		α Orionis		5 47 2.53	- 0.20	21.23	- 0.86	21.20	5 47 22.70
20		75 Orionis l.....		6 8 50.12	- 0.18	21.23	- 0.91		6 9 10.26
21	14	12 Eridani		3 5 36.63	- 0.31	21.50	- 0.55		3 5 57.27
22		α Persei		3 13 42.07	+ 0.24	21.50	- 0.06	21.45	3 14 3.75
23		0 Tauri		3 16 42.67	- 0.07	21.50	- 0.21		3 17 3.89
24		1110 B.A.C.		3 29 3.02	- 0.13	21.50	- 0.33		3 29 24.06
25		18 Tauri		3 36 13.26	+ 0.03	21.50	- 0.25		3 36 34.54
26		7 ⁿ Tauri		3 38 34.57	+ 0.01	21.50	- 0.26	21.54	3 38 55.82
27		1205 B.A.C.		3 44 29.13	- 0.13	21.51	- 0.42		3 44 50.09
28		7 ¹ Eridani		3 50 57.88	- 0.21	21.51	- 0.56	21.66	3 51 18.62
29		ν Tauri		3 55 8.98	- 0.09	21.51	- 0.43		3 55 29.97
30		49 Persei		3 58 23.74	+ 0.11	21.51	- 0.39		3 58 44.97
31		1286 B.A.C.		4 3 53.24	+ 0.45	21.51	- 0.73		4 4 14.47
32		1308 B.A.C.		4 8 0.15	- 0.32	21.51	- 0.88		4 8 20.46
33		58 Tauri		4 12 5.58	- 0.03	21.51	- 0.48		4 12 26.58
34		8 ² Tauri		4 15 26.96	- 0.03	+ 21.51	- 0.49	- 21.43	4 15 47.95

January 12. Very cloudy.

14. Hazy; the stars very tremulous.

32 Scarcely visible.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.					
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	Jan. 14	1391 B.A.C.		4 21 58.52	- 0.03	+ 21.51	- 0.52		4 22 19.48		
2		4 Camelopardi...		4 35 40.73	+ 0.35	21.51	- 0.95		4 36 1.64		
3		* 105° 2'		4 52 42.56	- 0.22	21.52	- 0.82		4 53 3.04		
4		16 Anrigæ		5 8 23.09	+ 0.08	21.52	- 0.81		5 8 43.88		
5		* 0° 42' .....S.P.	2	5 18 40.08	-24.92	21.52	+75.58	-* 21.71	5 19 52.26		
6		θ ¹ Orionis		5 27 51.55	- 0.16	21.52	- 0.85		5 28 12.06		
7		α Orionis	5	5 47 2.13	- 0.09	21.53	- 0.86	21.49	5 47 22.71		
8		1004 Gr.	3	5 48 20.27	+ 5.21	21.53	- 18.10	* 21.53	5 48 28.91		
9	15	1110 B.A.C.		3 29 3.03	- 0.22	21.78	- 0.32		3 29 24.27		
10		1155 B.A.C.		3 36 57.74	- 0.10	21.79	- 0.25		3 37 19.18		
11		1187 B.A.C.		3 41 0.73	- 0.08	21.79	- 0.27		3 41 22.17		
12		γ ¹ Eridani		3 50 57.81	- 0.31	21.79	- 0.55	21.82	3 51 18.74		
13		37 Tanri A ¹		3 55 50.05	- 0.10	21.79	- 0.36	21.80	3 56 11.38		
14		1273 B.A.C.	5	3 59 20.81	- 0.39	21.79	- 0.78		3 59 41.43		
15		ω ² Tauri		4 8 28.23	- 0.11	21.79	- 0.44		4 8 49.47		
16		1337 B.A.C.		4 12 40.93	- 0.10	21.79	- 0.46		4 13 2.16		
17		Weisse iv. 329. .		4 16 6.80	- 0.17	21.79	- 0.50	21.75	4 16 27.92		
18		R Tauri		4 20 3.46	- 0.17	21.79	- 0.52		4 20 24.56		
19		944 Gr.	3	5 16 3.67	+ 3.17	21.80	- 9.90	* 20.80	5 16 18.74		
20		* 0° 42' .....S.P.	2	5 18 41.35	-24.06	21.80	+74.67	* 20.49	5 19 53.76		
21	18	δ 1st L.		5 15 7.73	- 0.07	22.35	.....		5 16 41.89		
22		22 Camelopardi .		5 26 35.06	+ 0.21	22.35	- 1.39		5 26 56.23		
23		136 Tanri		5 43 55.24	- 0.06	22.35	- 0.92		5 44 16.61		
24		α Orionis		5 47 1.26	- 0.17	22.35	- 0.86	22.44	5 47 22.58		
25		χ ³ Orionis		5 54 34.77	- 0.11	22.35	- 0.92	22.19	5 54 56.09		
26		ν Orionis		5 58 59.75	- 0.14	22.35	- 0.91	22.40	5 59 21.05		
27		κ Aurigæ		6 5 50.85	- 0.04	22.35	- 1.04	22.36	6 6 12.12		
28	25	31 Tauri α ²		3 43 57.04	- 0.16	23.22	- 0.26		3 44 19.84		
29		1229 B.A.C.		3 49 22.90	- 0.23	23.22	- 0.44	- 23.17	3 49 45.45		
30		τ ⁹ Eridani		3 53 24.86	- 0.29	23.22	- 0.57		3 53 47.22		
31		41 Tauri		3 57 24.07	- 0.06	23.22	- 0.26		3 57 46.97		
32		1286 B.A.C.		4 3 51.41	+ 0.22	+ 23.22	- 0.46		4 4 14.39		

2 Unsteady.

3 Hind's crimson star.

18 Variable; Hind 3.

19-20 Clondy.

21 Semi-diam. + 71^s.88.

28-30 Clondy.

LAMP EAST.

Ret. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Jan. 25	53 Eridani		4 31 12.99	- 0.24	+ 23.22	- 0.64		4 31 35.33
2		4 Camelopardi ..		4 35 39.08	+ 0.15	23.22	- 0.77		4 36 1.68
3		58 Eridani		4 40 46.25	- 0.25	23.22	- 0.70		4 41 8.52
4		π^1 Orionis		4 46 35.78	- 0.14	23.22	- 0.58	- 23.26	4 46 58.28
5		* 105° 0'	6	4 51 40.61	- 0.24	23.22	- 0.73		4 52 2.86
6		11 Orionis		4 55 58.20	- 0.12	23.22	- 0.62	23.22	4 56 20.68
7		12 Aurigæ		5 5 25.33	+ 0.05	23.22	- 0.87	23.21	5 5 47.73
8		θ^1 Orionis (1st).		5 27 49.34	- 0.20	23.22	- 0.80		5 28 11.56
9		* 5° 16' .....S.P.	5	5 36 20.70	- 2.33	23.22	+ 9.86	* 23.00	5 36 51.45
10		1004 Gr.	3	5 48 19.12	+ 3.41	23.22	- 16.57	* 22.95	5 48 29.18
11		2304 B.A.C.		6 55 3.43	- 0.14	23.23	- 1.06		6 55 25.46
12	28	55 Tauri		4 11 17.42	- 0.01	23.46	- 0.34		4 11 40.53
13		δ^2 Tauri		4 15 24.86	- 0.01	23.46	- 0.36	23.38	4 15 47.95
14		R Tauri		4 20 1.58	- 0.04	23.46	- 0.41		4 20 24.59
15		* 3° 56'	3	4 30 10.49	+ 2.65	23.46	- 5.84	* 22.49	4 30 30.76
16		π^1 Orionis		4 41 38.61	- 0.05	23.46	- 0.53		4 42 1.49
17		π^4 Orionis		4 46 35.48	- 0.04	23.46	- 0.55	23.43	4 46 58.35
18		* 105° 2'		4 52 40.51	- 0.13	23.46	- 0.70		4 53 3.14
19		11 Orionis		4 55 57.80	- 0.02	23.46	- 0.59	23.49	4 56 20.65
20		* 5° 16' .....S.P.	5	5 36 21.32	- 2.04	23.46	+ 9.45	* 22.50	5 36 52.19
21		α Orionis		5 47 0.03	- 0.05	23.46	- 0.83	23.52	5 47 22.61
22		66 Orionis		5 56 59.27	- 0.06	23.46	- 0.86		5 57 21.81
23	Feb. 9	140 Tauri		5 51 20.37	- 0.07	25.03	- 0.80		5 51 44.53
24		ν Orionis		5 58 56.94	- 0.10	25.03	- 0.80	25.06	5 59 21.07
25		κ Aurigæ		6 5 48.24	- 0.05	25.03	- 0.93	24.87	6 6 12.29
26		μ Geminorum ...	5	6 13 50.96	- 0.07	25.03	- 0.93	24.99	6 14 14.99
27		* 3° 14'	3	7 29 4.14	+ 2.97	25.04	- 23.74	* 24.43	7 29 8.41
28		* 4° 13' .....S.P.	3	7 43 8.49	- 2.50	25.05	+ 19.23	* 24.22	7 43 50.27
29		* 4° 14' .....S.P.	3	7 44 53.66	- 2.50	25.05	+ 19.31	* 24.57	7 45 35.52
30		2703 B.A.C.		7 57 40.44	- 0.07	25.05	- 1.36	25.14	7 58 4.06
31		15 Argûs		8 1 0.96	- 0.25	25.05	- 1.16	25.27	8 1 24.60
32		R Caneri		8 8 13.76	- 0.12	25.05	- 1.25	- 24.89	8 8 37.44
33		ϕ^1 Caneri		8 17 18.29	- 0.05	+ 25.05	- 1.50		8 17 41.79

January 28. A hazy night.

3—8 Cloudy.
10—11 Cloudy.
18 Hind's crimson star.

25—27 Cloudy.
32 Variable; very red.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Feb. 12	1713 B.A.C.		5 21 12.79	— 0.20	+ 25.76	— 0.71		5 21 37.64
2		22 Camelopardi.		5 26 31.23	+ 0.13	25.76	— 0.97		5 26 56.15
3		1796 B.A.C.		5 33 35.44	— 0.05	25.76	— 0.65		5 34 0.50
4		1851 B.A.C.	5	5 41 41.85	— 0.08	25.77	— 0.67		5 42 6.87
5		α Orionis		5 46 57.70	— 0.08	25.77	— 0.70	— 25.75	5 47 22.69
6		66 Orionis		5 56 57.00	— 0.10	25.77	— 0.74		5 57 21.93
7		75 Orionis <i>l.</i>		6 8 45.50	— 0.08	25.77	— 0.81		6 9 10.38
8		μ Geminorum ...		6 13 50.07	— 0.04	25.77	— 0.90	25.82	6 14 14.90
9		γ Geminorum ...		6 28 58.80	— 0.05	25.77	— 0.93	25.75	6 29 23.59
10	14	δ 1st L.		4 57 0.05	+ 0.01	26.00	.....		4 58 37.93
11		β Tauri		5 16 46.13	+ 0.02	26.00	— 0.54	25.93	5 17 11.61
12		1713 B.A.C.		5 21 12.53	— 0.15	26.00	— 0.71		5 21 37.67
13		ζ Tauri		5 28 37.00	— 0.01	26.00	— 0.60	26.08	5 29 2.39
14		1808 B.A.C.		5 35 52.12	— 0.03	26.00	— 0.62		5 36 17.47
15		μ Geminorum ...	5	6 13 49.83	— 0.01	26.01	— 0.88	26.01	6 14 14.95
16		S Can. Min.....		7 24 29.20	— 0.05	26.02	— 1.10		7 24 54.07
17		* 5° 34'	3	7 50 43.38	+ 1.29	26.02	— 14.45	* 25.65	7 50 56.24
18		R Cancri		8 8 12.56	— 0.03	26.03	— 1.25	26.00	8 8 37.31
19		* 4° 32' S.P.	3	8 10 44.92	— 1.67	26.03	+ 18.94	* 25.64	8 11 28.22
20		T Cancri		8 48 1.98	— 0.01	26.03	— 1.45		8 48 26.55
21	15	6 Puppis		7 42 45.91	— 0.14	26.27	— 1.08		7 43 10.96
22		* 5° 33'	3	7 50 42.55	+ 1.49	26.27	— 14.38	* 26.21	7 50 55.93
23		2703 B.A.C.		7 57 39.27	— 0.01	26.28	— 1.35	26.24	7 58 4.19
24		15 Argus		8 0 59.78	— 0.16	26.28	— 1.13	26.33	8 1 24.77
25		ν^3 Cancri		8 22 34.63	0.00	26.28	— 1.46	26.18	8 22 59.45
26		* 5° 20' S.P.	3	8 30 7.46	— 1.65	26.28	+ 16.82	* 26.17	8 30 48.91
27		ρ^1 Cancri		8 43 24.10	+ 0.02	26.28	— 1.59		8 43 48.81
28		T Cancri		8 48 1.42	— 0.01	26.28	— 1.45		8 48 26.24
29		θ Hydræ		9 6 27.22	— 0.07	26.29	— 1.27	26.36	9 6 52.17
30		3169 B.A.C.	5	9 10 18.78	+ 0.13	26.29	— 2.55		9 10 42.65
31		3199 B.A.C.	3	9 15 56.41	+ 1.01	26.29	— 12.05		9 16 11.66
32	16	19 Can. Maj.		6 48 57.41	— 0.05	+ 26.47	— 0.94	— 26.55	6 49 22.89

February 12. Very hazy near the horizon.

15. Light fleecy clouds.

10 Semi-diam. + 71^s.87.

15 Cloudy.

16 A new Variable, discovered by Mr. Hind.

20 Variable; Hind 10.

LAMP EAST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Feb. 16	D 1st L.		6 55 21.04	+ 0.03	+ 26.48	.....		6 56 58.56
2		14038 Lalande ..		7 6 31.64	- 0.01	26.48	- 1.13	- 26.42	7 6 56.98
3		δ Geminorum ...		7 11 5.78	- 0.01	26.48	- 1.15	26.58	7 11 31.10
4		ε Geminorum		7 16 21.54	+ 0.03	26.48	- 1.25		7 16 46.80
5		2470 B.A.C.		7 20 40.14	- 0.04	26.48	- 1.01	26.39	7 21 5.57
6		70 Geminorum ..		7 28 40.41	+ 0.03	26.48	- 1.44		7 29 5.48
7		S Geminorum ...		7 33 58.55	+ 0.02	26.48	- 1.27		7 34 23.78
8		* 5° 35' 3		8 25 9.21	+ 0.66	26.49	- 15.75	* 26.06	8 25 20.61
9		* 4° 12' S.P. 3		8 34 53.99	- 0.86	26.49	+ 21.52	* 26.09	8 35 41.14
10		θ Hydræ		9 6 27.06	- 0.02	26.49	- 1.27	26.47	9 6 52.26
11	29	7 Lynceis		6 22 6.95	+ 0.23	27.61	- 1.20		6 22 33.59
12		41 Camelopardi . 5		6 26 45.62	+ 0.32	27.61	- 1.52		6 27 12.03
13		12 Lynceis		6 33 4.29	+ 0.28	27.61	- 1.49		6 33 30.69
14		19 Can. Maj.		6 48 56.15	- 0.15	27.61	- 0.76	27.73	6 49 22.85
15		2304 B.A.C.		6 54 58.62	- 0.04	27.61	- 0.84		6 55 25.35
16		20 Monocerotis..		7 2 37.83	- 0.09	27.61	- 0.82		7 3 4.53
17		14038 Lalande ..		7 6 30.34	+ 0.02	27.61	- 0.99	27.55	7 6 56.98
18		2470 B.A.C.		7 20 38.93	- 0.11	27.61	- 0.88	27.54	7 21 5.55
19	March 7	ε Hydræ		8 38 41.98	- 0.06	28.19	- 1.19	28.22	8 39 8.92
20		* 2° 31' S.P. 3		8 40 2.94	- 6.17	28.19	+ 32.41	* 27.94	8 40 57.37
21		ρ ² Cancri		8 43 34.17	+ 0.06	28.19	- 1.53		8 44 0.89
22		T Cancri		8 47 59.74	+ 0.01	28.19	- 1.37		8 48 26.57
23		* 2° 31' 3		9 1 14.23	+ 6.03	28.19	- 34.81	* 27.81	9 1 13.64
24		α Lynceis		9 11 49.97	+ 0.10	28.19	- 1.80	28.05	9 12 16.46
25		α Hydræ		9 20 3.83	- 0.14	28.19	- 1.19	2'.17	9 20 30.69
26		11 Leo Min.		9 26 34.37	+ 0.11	28.19	- 1.92		9 27 0.75
27		ι Hydræ		9 32 3.22	- 0.10	28.19	- 1.27	28.24	9 32 30.04
28		15 Leonis f.		9 34 39.91	+ 0.07	28.19	- 1.77		9 35 6.40
29		18 Leonis		9 38 10.92	- 0.04	28.19	- 1.43	28.26	9 38 37.64
30	8	Sirius		6 38 20.74	- 0.32	28.24	- 0.58	28.34	6 38 48.08
31		15 Lynceis 5		6 44 20.86	+ 0.25	28.24	- 1.37		6 44 47.98
32		ε Can. Maj.		6 52 30.99	- 0.40	+ 28.24	- 0.65	- 28.03	6 52 58.18

1 Semi-diam. + 71".01.

7 Variable; II ind 6.

17 Deep red.

30-32 Hazy.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	March 8	22 Can. Maj.		6 55 31.81	- 0.39	+ 28.24	- 0.66		6 55 59.00
2		2347 B.A.C.		7 2 36.11	- 0.14	28.24	- 0.81		7 3 34.0
3		2383 B.A.C.		7 7 40.78	- 0.07	28.24	- 0.94		7 8 8.01
4		S Can. Min.	5	7 24 27.25	- 0.18	28.24	- 0.88		7 24 54.43
5		23 Lyncis.....	5	7 28 27.40	+ 0.22	28.24	- 1.88		7 28 53.98
6		S Geminorum ...	5	7 33 56.81	- 0.09	28.24	- 1.04		7 34 23.92
7		6 Puppis		7 42 43.91	- 0.32	28.24	- 0.85		7 43 10.98
8		28 Monocerotis..		7 53 26.89	- 0.24	28.24	- 0.95		7 53 53.94
9		2734 B.A.C.		8 2 9.85	- 0.03	28.24	- 1.38		8 2 36.68
10		* 4° 32'..... S.P.	3	8 10 48.15	- 3.73	28.24	+15.75	* 27.66	8 11 28.41
11		2827 B.A.C.	5	8 18 23.85	- 0.37	28.24	- 0.97		8 18 50.75
12		* 5° 35'.....	3	8 25 3.65	+ 2.67	28.24	-13.80	* 27.66	8 25 20.76
13		S Cancri		8 35 15.57	- 0.12	28.24	- 1.32	28.13	8 35 42.37
14		ε Hydrae		8 38 41.98	- 0.19	28.24	- 1.18	28.34	8 39 8.85
15		ρ ¹ Cancri.....		8 43 22.04	- 0.06	28.24	- 1.51		8 43 48.71
16		10 Urs. Maj.		8 50 50.31	+ 0.02	28.24	- 1.93	28.29	8 51 16.64
17		τ Urs. Maj.		8 58 35.07	+ 0.37	28.24	- 3.47		8 59 0.21
18		3199 B.A.C.		9 15 52.64	+ 1.79	28.24	-10.57		9 16 12.10
19		11 Leo. Min.....		9 26 34.39	- 0.02	28.24	- 1.90		9 27 0.71
20		ι Hydrae		9 32 3.32	- 0.24	28.24	- 1.27	28.28	9 32 30.05
21		15 Leonis f.....		9 34 39.80	- 0.05	28.24	- 1.77		9 35 6.22
22		19 Leonis.....		9 39 14.56	- 0.16	28.24	- 1.43		9 39 41.21
23	11	2371 B.A.C.		7 6 3.95	- 0.32	27.98	- 0.65		7 6 30.96
24		2399 B.A.C.		7 9 19.49	- 0.32	27.98	- 0.66		7 9 46.49
25		2443 B.A.C.		7 16 13.66	- 0.33	27.98	- 0.69		7 16 40.62
26		S Can. Min.	5	7 24 27.01	- 0.12	27.97	- 0.84		7 24 54.02
27		23 Lyncis.....		7 28 27.40	+ 0.25	27.97	- 1.80		7 28 53.82
28		S Geminorum ...	5	7 33 56.95	- 0.04	27.97	- 1.00		7 34 23.88
29		* 5° 34'.....	4	7 50 37.01	+ 2.42	27.97	-11.30	* 27.74	7 50 56.10
30		2655 B.A.C.		7 51 28.99	- 0.32	27.97	- 0.83		7 51 55.81
31		2734 B.A.C.		8 2 9.99	+ 0.02	27.97	- 1.34		8 2 36.64
32		χ Cancri		8 10 51.98	- 0.01	27.97	- 1.30	28.05	8 11 18.64
33		2810 B.A.C.		8 16 6.72	- 0.07	27.97	- 1.18	- 28.03	8 16 33.44
34		27 Cancri		8 18 19.30	- 0.09	+ 27.97	- 1.13		8 18 46.05

4 Very faint.

13 Variable; Hind 8.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geo-centric R.A. of Planets' Centres.		
					Instrum.	Clock.					
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	March 11	* 5° 22'..... S.P.	3	8 28 24.96	- 2.75	+ 27.97	+ 13.86	- * 27.67	8 29	4.04	
2		* 5° 20'..... S.P.	3	8 30 9.80	- 2.77	27.97	+ 14.05	* 27.72	8 30	49.05	
3		3031 B.A.C.		8 47 13.62	- 0.08	27.96	- 1.28		8 47	40.22	
4		3169 B.A.C.		9 10 16.93	+ 0.18	27.96	- 2.46		9 10	42.61	
5		α Hydræ		9 20 4.09	- 0.19	27.96	- 1.18	27.95	9 20	30.68	
6		11 Leo Min.		9 26 34.47	+ 0.04	27.96	- 1.89		9 27	0.58	
7		18 Leonis.....		9 38 11.40	- 0.10	27.96	- 1.42	27.83	9 38	37.84	
8		Regulus.....		10 0 15.59	- 0.10	27.95	- 1.47	28.01	10 0	41.97	
9		γ Leonis (2d) ...		10 11 36.01	- 0.05	27.95	- 1.63	27.88	10 12	2.28	
10		24 Sextantis		10 15 39.71	- 0.15	27.95	- 1.35		10 16	6.16	
11		13 22 Can. Maj.		6 55 32.40	- 0.31	27.49	- 0.56		6 55	59.02	
12		2383 B.A.C.		7 7 41.37	+ 0.01	27.49	- 0.69		7 8	8.18	
13		2420 B.A.C.		7 12 32.43	- 0.33	27.49	- 0.64		7 12	58.95	
14		2453 B.A.C.		7 17 37.27	- 0.33	27.48	- 0.66		7 18	3.76	
15		70 Geminorum ..		7 28 39.04	+ 0.08	27.48	- 1.12		7 29	5.48	
16		* 4° 32'..... S.P.	3	8 10 49.32	- 3.78	27.47	+ 14.76	* 27.53	8 11	27.77	
17		2828 B.A.C.		8 18 27.63	- 0.29	27.47	- 0.90		8 18	53.91	
18		13 Caneri.....		8 22 33.20	0.00	27.47	- 1.28	27.43	8 22	59.39	
19		2898 B.A.C.		8 28 56.20	- 0.31	27.47	- 0.94		8 29	22.42	
20		S Caneri		8 35 16.16	- 0.04	27.47	- 1.27	27.41	8 35	42.32	
21		* 2° 31'.....	3	9 1 12.56	+ 6.51	27.46	- 33.29	* 27.48	9 1	13.24	
22		3183 B.A.C.		9 12 21.90	+ 0.01	27.46	- 1.54	27.34	9 12	47.83	
23		23 Urs. Maj. <i>h</i>		9 19 43.53	+ 0.47	27.46	- 3.53		9 20	7.93	
24		15 Leonis <i>f</i>		9 34 40.51	+ 0.04	27.46	- 1.74		9 35	6.27	
25		Regulus		10 0 16.06	- 0.08	27.45	- 1.46	27.51	10 0	41.97	
26		23 Leo Min.		10 7 37.43	+ 0.04	27.45	- 1.84		10 8	3.08	
27		γ Leonis (2d) ...		10 11 36.26	- 0.03	27.45	- 1.63	27.61	10 12	2.05	
28		24 Sextantis		10 15 40.10	- 0.15	27.45	- 1.35		10 16	6.05	
29		14 ϕ 1 Caneri.....		8 17 16.07	- 0.03	27.14	- 1.31		8 17	41.87	
30		2883 B.A.C.		8 26 48.27	- 0.45	27.14	- 0.92		8 27	14.04	
31		24 Cep. (Hev.) S.P.	3	8 32 44.19	- 14.32	27.14	+ 56.45	* 26.88	8 33	53.46	
32		* 86° 20'	5	8 46 25.43	- 0.20	27.14	- 1.13		8 46	51.24	
33		10 Urs. Maj.		8 50 51.17	+ 0.09	+ 27.14	- 1.86	- 27.29	8 51	16.54	

19 Cloudy.

30 Very faint.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	March 14	75 Cancri.....		8 59 53.01	- 0.04	+ 27.14	- 1.51	- 26.96	9 0 18.60
2		* 2° 31'	3	9 1 12.23	+ 7.20	27.14	- 33.01	* 26.84	9 1 13.56
3		3183 B.A.C.		9 12 22.19	- 0.05	27.13	- 1.53	27.10	9 12 47.74
4		23 Urs. Maj. h...		9 19 43.70	+ 0.45	27.13	- 3.51		9 20 7.77
5		11 Leo Min.		9 26 35.33	+ 0.03	27.13	- 1.86		9 27 0.63
6		ε Leonis		9 37 14.79	- 0.06	27.13	- 1.60	27.16	9 37 40.26
7		19 Leonis.....		9 39 15.62	- 0.14	27.13	- 1.40		9 39 41.21
8		μ Leonis		9 44 8.53	- 0.04	27.13	- 1.68	27.14	9 44 33.94
9		20 Leo Min.	5	9 52 16.65	0.00	27.12	- 1.85	27.18	9 52 41.92
10		13 Sextantis		9 56 15.16	- 0.20	27.12	- 1.32	27.10	9 56 40.76
11		3452 B.A.C.		9 58 53.32	- 0.43	27.12	- 1.18		9 59 18.83
12		3489 B.A.C.		10 6 16.66	- 0.39	27.12	- 1.19		10 6 42.20
13	24	Procyon.....		7 31 20.50	- 0.19	26.08	- 0.65	26.14	7 31 45.74
14		Pollux		7 36 5.00	- 0.05	26.08	- 0.88	25.88	7 36 30.15
15		6 Puppis		7 42 45.58	- 0.32	26.08	- 0.60		7 43 10.74
16		9 Puppis		7 44 40.84	- 0.30	26.08	- 0.62		7 45 6.00
17		28 Monocerotis..		7 53 28.74	- 0.23	26.08	- 0.73		7 53 53.86
18		2734 B.A.C.		8 2 11.69	- 0.02	26.08	- 1.14		8 2 36.61
19		β Cancri		8 8 17.19	- 0.17	26.08	- 0.89	26.17	8 8 42.21
20		2788 B.A.C.		8 11 31.93	- 0.10	26.08	- 1.03	25.94	8 11 56.88
21		29 Cancri.....		8 20 9.90	- 0.14	26.08	- 1.00	26.29	8 20 34.84
22	26	23 Leo Min.		10 7 39.20	- 0.05	25.76	- 1.77		10 8 3.14
23		* 3° 13'	4	10 8 44.90	+ 4.71	25.76	- 28.78	* 25.43	10 8 46.59
24		37 Urs. Maj.....		10 25 28.53	+ 0.23	25.76	- 3.20		10 25 51.32
25		* 5° 41'.....S.P.	3	10 28 29.50	- 2.95	25.76	+ 16.60	* 25.40	10 29 8.91
26		52 Leonis h.		10 38 23.60	- 0.14	25.76	- 1.56		10 38 47.66
27		47 Urs. Maj.		10 50 59.86	+ 0.04	25.75	- 2.29	25.76	10 51 23.36
28		3779 B.A.C.		10 55 28.34	- 0.23	25.75	- 1.41	25.84	10 55 52.45
29		δ Leonis		11 6 2.86	- 0.10	25.75	- 1.74	25.74	11 6 26.77
30		75 Leonis.....		11 9 28.69	- 0.21	25.75	- 1.46		11 9 52.77
31		δ Hyd. & Crat...		11 11 44.50	- 0.30	25.75	- 1.32	25.79	11 12 8.63
32		89 Leonis.....	5	11 26 35.85	- 0.20	+ 25.75	- 1.50	- 25.60	11 26 59.90

March 24. The stars unsteady and indistinct.

26. Hazy and unsteady.

19—20 Cloudy.

21 Cloudy; hardly visible.

LAMP EAST.											
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.			h.	m.	s.
	1856.			h. m. s.	s.	s.	s.	s.	h.	m.	s.
1	March 27	18 Puppis		8 3 34.77	— 0.19	+ 25.42	— 0.66	— 25.43	8	3	59.34
2		β Caneri		8 8 17.69	— 0.07	25.41	— 0.85	25.53	8	8	42.18
3		2788 B.A.C.		8 11 32.30	— 0.01	25.41	— 1.00	25.45	8	11	56.70
4		* 1° 26' S.P.	3	8 15 35.15	— 10.37	25.41	+ 38.52	* 24.92	8	16	28.71
5		* 1° 34' S.P.	3	8 22 45.77	— 9.56	25.41	+ 37.29	* 25.78	8	23	38.91
6		5 Urs. Maj. <i>b</i>		8 41 5.15	+ 0.39	25.41	— 2.60		8	41	28.35
7		* 86° 20'		8 46 27.04	— 0.11	25.41	— 0.98		8	46	51.36
8		κ Urs. Maj.		8 53 23.00	+ 0.18	25.40	— 1.87	25.27	8	53	46.71
9		τ Urs. Maj.	5	8 58 37.32	+ 0.43	25.40	— 2.98		8	59	0.17
10		* 2° 31'	3	9 1 10.73	+ 5.80	25.40	— 28.75	* 25.48	9	1	13.18
11		3199 B.A.C.	5	9 15 54.14	+ 1.74	25.40	— 9.77		9	16	11.51
12		19 Leonis		9 39 17.13	— 0.06	25.39	— 1.31		9	39	41.15
13		3393 B.A.C.	5	9 48 4.08	+ 0.90	25.39	— 6.15		9	48	24.22
14		20 Leo Min.		9 52 18.43	+ 0.05	25.39	— 1.76	25.26	9	52	42.11
15		3629 B.A.C.	3	10 28 45.65	+ 1.57	25.38	— 11.05		10	29	1.55
16		34 Sextantis		10 34 47.34	— 0.10	25.38	— 1.40		10	35	11.22
17		52 Leonis <i>k</i>		10 38 23.77	— 0.05	25.38	— 1.59		10	38	47.51
18		ν Hydræ		10 42 7.36	— 0.20	25.38	— 1.25	25.34	10	42	31.29
19		<i>b</i> ³ Hydræ		10 46 3.09	— 0.22	25.38	— 1.24	25.53	10	46	27.01
20		3764 B.A.C.	5	10 52 24.90	+ 0.95	25.38	— 7.46		10	52	43.77
21	29	* 1° 34' S.P.	3	8 22 48.11	— 9.28	25.02	+ 35.93	* 24.52	8	23	39.78
22		2883 B.A.C.		8 26 50.15	— 0.31	25.02	— 0.66		8	27	14.20
23		5 Urs. Maj. <i>b</i>		8 41 5.62	+ 0.37	25.02	— 2.54		8	41	28.47
24		ι Urs. Maj.		8 48 56.48	+ 0.17	25.02	— 1.82	24.94	8	49	19.85
25		τ Urs. Maj.		8 58 37.58	+ 0.41	25.02	— 2.92		8	59	0.09
26		* 2° 15'	3	9 10 13.69	+ 6.30	25.02	— 32.73	* 24.19	9	10	12.28
27		τ^1 Hydræ (south)		9 21 26.43	— 0.14	25.02	— 1.06		9	21	50.25
28		33 Hydræ		9 26 57.82	— 0.15	25.02	— 1.06		9	27	21.63
29		ν Urs. Maj.		9 40 20.70	+ 0.32	25.01	— 2.97		9	40	43.06
30		3393 B.A.C.	5	9 48 4.84	+ 0.86	25.01	— 6.07		9	48	24.64
31		13 Sextantis		9 56 17.20	— 0.11	25.01	— 1.26	— 24.91	9	56	40.84
32		λ Hydræ		10 3 10.49	— 0.18	25.01	— 1.14		10	3	34.18
33		3489 B.A.C.		10 6 18.63	— 0.26	25.01	— 1.08		10	6	42.30
34		40 Leonis		10 11 30.09	— 0.02	+ 25.01	— 1.55		10	11	53.53
34 Very unsteady.											

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduc- tion to Mean R.A.	Clock Error by Observa- tion.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	March 29	3566 B.A.C.		10 18 40.87	- 0.15	+ 25.01	- 1.24		10 19 4.49
2		48 Leonis.....		10 26 53.83	- 0.09	25.01	- 1.41		10 27 17.34
3		* 2° 39'..... S.P.	3	10 29 44.76	- 5.49	25.01	+ 35.16	- * 24.08	10 30 39.44
4		ν Hydræ		10 42 7.66	- 0.21	25.01	- 1.24	25.04	10 42 31.22
5		* 1° 35'	3	10 53 43.56	+ 9.01	25.01	- 62.53	* 24.03	10 53 15.05
6		51 Leo Min.	5	10 57 10.85	+ 0.01	25.01	- 1.82		10 57 34.05
7		75 Leonis.....		11 9 29.23	- 0.11	25.01	- 1.46		11 9 52.67
8		61 Urs. Maj.		11 33 4.69	+ 0.06	25.01	- 2.16		11 33 27.60
9		ν Virginis		11 38 4.16	- 0.09	25.01	- 1.57	25.01	11 38 27.51
10		* 51° 17'		11 41 58.53	+ 0.09	25.00	- 2.31		11 42 21.31
11		1830 Gr.		11 44 17.24	+ 0.09	25.00	- 2.31		11 44 40.02
12		* 51° 9'		11 46 33.17	+ 0.09	25.00	- 2.31	25.13	11 46 55.95
13	31	3260 Gr..... S.P.	4	8 29 20.33	- 3.24	24.96	+ 9.25	* 24.91	8 29 51.30
14		ρ^2 Cancri.....		8 43 37.10	- 0.09	24.96	- 1.24		8 44 0.73
15		3031 B.A.C.		8 47 16.56	- 0.19	24.96	- 1.05		8 47 40.28
16		κ Urs. Maj.		8 53 23.23	+ 0.08	24.96	- 1.79	25.06	8 53 46.48
17		* 2° 31'	3	9 1 8.72	+ 6.81	24.96	- 27.23	* 24.96	9 1 13.26
18		3127 B.A.C.		9 3 2.69	- 0.44	24.96	- 0.81		9 3 26.40
19		33 Hydræ		9 26 57.91	- 0.31	24.96	- 0.94	24.87	9 27 21.62
20		ν Urs. Maj.		9 40 20.89	+ 0.27	24.96	- 2.92		9 40 43.20
21		μ Leonis		9 44 10.76	- 0.11	24.96	- 1.54	24.84	9 44 34.07
22		λ Hydræ		10 3 10.71	- 0.35	24.96	- 1.13	- 24.94	10 3 34.19
23		39 Leonis.....		10 8 55.86	- 0.13	24.96	- 1.59		10 9 19.10
24		24 Sextantis		10 15 42.59	- 0.28	24.96	- 1.27		10 16 6.00
25		3566 B.A.C.		10 18 40.89	- 0.32	24.96	- 1.23		10 19 4.30
26		48 Leonis		10 26 53.74	- 0.24	24.96	- 1.35		10 27 17.11
27		3747 B.A.C.	5	10 48 0.22	+ 1.28	24.96	- 8.69		10 48 17.77
28		α Urs. Maj.		10 54 26.77	+ 0.33	24.96	- 3.82		10 54 48.24
29		β Crateris		11 4 11.47	- 0.43	24.96	- 1.26		11 4 34.74
30		75 Leonis		11 9 29.66	- 0.27	24.96	- 1.46		11 9 52.89
31		3863 B.A.C.		11 13 39.59	- 0.24	24.96	- 1.52		11 14 2.79
32		ϵ Crateris		11 16 57.06	- 0.35	24.96	- 1.35		11 17 20.32
33		87 Leonis e.....		11 22 34.26	- 0.29	24.96	- 1.43		11 22 57.50
34		3920 B.A.C.	5	11 24 14.13	- 0.32	+ 24.96	- 1.40		11 24 37.37

18 The minutes noted 2 instead of 3.

27 Very unsteady.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.			h.	m.	s.
	1856.			h. m. s.	s.	s.	s.	s.			
1	March 31	Crateris.....		11 30 58.20	- 0.36	+ 24.96	- 1.37	- 25.07	11	31	21.43
2		3969 B.A.C.		11 34 9.87	- 0.50	24.96	- 1.31		11	34	33.02
3	April 1	20 Urs. Maj.		9 9 3.61	+ 0.18	24.94	- 2.62		9	9	26.11
4		3206 B.A.C.		9 16 15.16	- 0.11	24.94	- 1.27	24.92	9	16	38.72
5		18631 Lalande ..		9 20 49.14	- 0.05	24.94	- 1.57		9	21	12.46
6		* 2° 45' 3		9 30 13.25	+ 4.01	24.94	- 28.15	* 25.02	9	30	14.05
7		15 Leo Min.		9 38 54.06	+ 0.04	24.94	- 2.09		9	39	16.95
8		23 Leonis		9 42 50.74	- 0.14	24.94	- 1.30		9	43	14.24
9		32 Urs. Maj.		10 7 10.36	+ 0.28	24.94	- 3.87		10	7	31.71
10		42 Leonis	5	10 13 42.17	- 0.12	24.94	- 1.46		10	14	5.53
11		β Leo Min. 5		10 19 9.75	- 0.02	24.94	- 1.98		10	19	32.69
12		* 2° 39' S.P. 3		10 29 43.59	- 4.47	24.94	+ 34.39	* 25.00	10	30	38.45
13		52 Leonis <i>k</i>		10 38 24.21	- 0.13	24.94	- 1.53		10	38	47.49
14		3747 B.A.C. 3		10 48 0.54	+ 0.82	24.94	- 8.65		10	48	17.65
15		α Urs. Maj.		10 54 26.90	+ 0.21	24.94	- 3.80		10	54	48.25
16		β Crateris		11 4 11.63	- 0.29	24.94	- 1.25		11	4	35.03
17		73 Leonis <i>n</i>		11 7 56.70	- 0.13	24.94	- 1.61		11	8	19.90
18		δ Hyd. et Crat. .		11 11 45.37	- 0.25	24.94	- 1.31	24.86	11	12	8.75
19		ϵ Crateris		11 16 57.17	- 0.23	24.94	- 1.35		11	17	20.53
20		87 Leonis <i>e</i>		11 22 34.27	- 0.20	24.94	- 1.43		11	22	57.58
21		3920 B.A.C.		11 24 14.00	- 0.22	24.94	- 1.40		11	24	37.32
22		89 Leonis		11 26 36.50	- 0.18	24.94	- 1.50	24.93	11	26	59.76
23		Crateris.....		11 30 58.24	- 0.24	24.94	- 1.57	24.91	11	31	21.57
24		62 Urs. Maj.		11 33 41.26	- 0.06	24.94	- 2.07		11	34	4.07
25		ν Virginis		11 38 4.36	- 0.16	24.94	- 1.57	24.88	11	38	27.57
26		1830 Gr.		11 44 17.36	- 0.02	24.94	- 2.31		11	44	39.97
27		* 51° 9' 3		11 46 33.30	- 0.02	24.94	- 2.31	25.11	11	46	55.91
28	4	Urs. Maj.		8 48 56.83	+ 0.11	24.63	- 1.69	24.52	8	49	19.88
29		75 Cancri.....		8 59 55.21	0.00	24.63	- 1.25	24.46	9	0	18.59
30		* 2° 15' 3		9 10 12.69	+ 4.71	24.63	- 30.15	- 24.20	9	10	11.88
31		* 2° 11' 3		9 23 29.19	+ 4.84	24.63	- 33.03		9	23	25.63
32		15 Leo Min.		9 38 54.24	+ 0.10	24.63	- 2.04		9	39	16.93
33		23 Leonis		9 42 50.93	- 0.06	+ 24.63	- 1.27		9	43	14.23

10—11 Cloudy.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.					
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	April 4	3576 B.A.C.		10 19 50.60	- 0.12	+ 24.63	- 1.25		10 20 13.86		
2		* 2° 39' .....S.P.	3	10 29 44.93	- 4.14	24.63	+ 33.56	- * 24.16	10 30 38.98		
3		38 Urs. Maj.	5	10 31 43.64	+ 0.34	24.63	- 4.14		10 32 4.47		
4		51 Leonis <i>m</i>		10 38 15.93	- 0.03	24.63	- 1.60		10 38 38.93		
5		<i>b</i> ³ Hydræ.....		10 46 3.77	- 0.19	24.63	- 1.20	24.78	10 46 27.01		
6		3764 B.A.C.	5	10 52 25.70	+ 0.68	24.63	- 7.17		10 52 43.84		
7		δ Leonis.....		11 6 3.83	- 0.03	24.63	- 1.72	24.68	11 6 26.71		
8		ξ Urs. Min. (1st)		11 10 6.99	0.00	24.63	- 2.00		11 10 29.62		
9		3863 B.A.C.		11 13 39.79	- 0.08	24.63	- 1.51		11 14 2.83		
10		ε Crateris.....		11 16 57.30	- 0.15	24.63	- 1.34		11 17 20.44		
11		3922 B.A.C.		11 24 45.39	- 0.23	24.63	- 1.28		11 25 8.51		
12		ξ Virginis		11 37 28.67	- 0.08	24.63	- 1.59		11 37 51.63		
13		* 51° 17'	5	11 41 59.01	+ 0.05	24.63	- 2.30		11 42 21.39		
14		* 51° 14'		11 46 14.67	+ 0.05	24.63	- 2.31	24.69	11 46 37.04		
15		5 3576 B.A.C.		10 19 50.77	- 0.04	24.56	- 1.24		10 20 14.05		
16		48 Leonis		10 26 54.17	- 0.02	24.56	- 1.36		10 27 17.35		
17		* 2° 39' . ...S.P.	3	10 29 44.93	- 3.47	24.56	+ 33.26	* 23.79	10 30 39.28		
18		38 Urs. Maj.	5	10 31 43.78	+ 0.34	24.56	- 4.12		10 32 4.56		
19		55 Leonis		10 47 54.96	- 0.04	24.56	- 1.37		10 48 18.11		
20		47 Urs. Maj.	5	10 51 0.93	+ 0.11	24.56	- 2.22	24.55	10 51 23.38		
21		* 1° 35'	3	10 53 44.23	+ 5.82	24.56	- 59.88	* 23.90	10 53 14.73		
22		73 Leonis <i>n</i>		11 7 56.93	0.00	24.56	- 1.59	24.43	11 8 19.90		
23		ξ Urs. Maj. (2d)		11 10 7.20	+ 0.07	24.56	- 1.99		11 10 29.84		
24		80 Leonis		11 18 3.06	- 0.02	24.56	- 1.49		11 18 26.11		
25		88 Leonis		11 23 55.87	+ 0.01	24.56	- 1.65		11 24 18.79		
26		4043 B.A.C.		11 51 18.47	- 0.04	24.56	- 1.65	24.69	11 51 41.34		
27		12 * 3° 28'	3	9 47 37.30	+ 2.35	23.43	- 20.94		9 47 42.14		
28		21 Leo Min.		9 58 33.79	+ 0.03	23.43	- 1.69	- 23.46	9 58 55.56		
29		3476 B.A.C.		10 3 44.00	- 0.12	23.43	- 1.05		10 4 6.26		
30		20 Sextantis		10 6 12.41	- 0.12	23.43	- 1.06		10 6 34.66		
31		40 Leonis		10 11 31.71	- 0.03	23.43	- 1.42		10 11 53.69		
32		3566 B.A.C.		10 18 42.16	- 0.12	23.43	- 1.13		10 19 4.34		
33		3629 B.A.C.	3	10 28 47.15	+ 0.89	+ 23.43	- 9.79		10 29 1.68		

11 Companion equal sp.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean B.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	April 12	* 2° 39' .....S.P.	3	10 29 48.09	- 3.24	+ 23.43	+ 31.05	- * 22.61	10 30 39.33
2		51 Leonis <i>m</i>		10 38 16.94	- 0.03	23.43	- 1.53		10 38 38.81
3		47 Urs. Maj.		10 51 2.04	+ 0.05	23.43	- 2.15	23.43	10 51 23.37
4		* 1° 35'	3	10 53 42.73	+ 5.31	23.43	- 56.65	* 22.68	10 53 14.82
5		51 Leo Min.		10 57 12.34	- 0.01	23.43	- 1.74	23.47	10 57 34.02
6		θ Leonis		11 6 19.14	- 0.04	23.43	- 1.58	23.43	11 6 40.95
7		ξ Urs. Maj. (1st)		11 10 7.97	+ 0.01	23.43	- 1.95		11 10 29.46
8		87 Leonis <i>c</i>		11 22 35.49	- 0.10	23.43	- 1.40		11 22 57.42
9		3922 B.A.C.		11 24 46.61	- 0.19	23.43	- 1.25		11 25 8.60
10		61 Urs. Maj.		11 33 6.09	+ 0.02	23.43	- 2.11		11 33 27.43
11		3992 B.A.C.		11 40 52.26	- 0.05	23.43	- 1.67		11 41 13.97
12		* 51° 14'		11 46 16.00	+ 0.04	23.43	- 2.28	23.34	11 46 37.19
13		γ Comæ		12 19 24.09	+ 0.01	23.43	- 2.05		12 19 45.48
14		δ Corvi		12 22 3.24	- 0.14	23.43	- 1.46		12 22 25.07
15	16	* 3° 28'	4	9 47 35.40	+ 3.60	23.46	- 19.78		9 47 42.68
16		21 Leo Min.		9 58 33.83	+ 0.02	23.46	- 1.63	23.37	9 58 55.68
17		3476 B.A.C.		10 3 43.96	- 0.18	23.46	- 1.01		10 4 6.23
18		20 Sextantis		10 6 12.46	- 0.18	23.46	- 1.02		10 6 34.72
19		α Urs. Maj.		10 54 28.41	+ 0.31	23.46	- 3.50		10 54 48.68
20		χ Leonis		10 57 13.31	- 0.12	23.46	- 1.40	23.51	10 57 35.25
21		β Crateris		11 4 12.87	- 0.25	23.46	- 1.16		11 4 34.92
22		73 Leonis <i>n</i>		11 7 57.96	- 0.08	23.46	- 1.53	23.42	11 8 19.81
23		σ Leonis		11 13 20.67	- 0.12	23.46	- 1.45	23.57	11 13 42.56
24		80 Leonis		11 18 4.14	- 0.12	23.46	- 1.44		11 18 26.04
25		δ 1st L.		11 23 32.54	- 0.12	23.46	.....		11 24 57.01
26		62 Urs. Maj.		11 33 42.79	+ 0.01	23.46	- 2.01		11 34 4.25
27		ν Virginis		11 38 5.61	- 0.12	23.46	- 1.54	23.56	11 38 27.41
28		3992 B.A.C.		11 40 52.53	- 0.08	23.46	- 1.66		11 41 14.25
29		β Virginis	6	11 42 50.14	- 0.14	23.46	- 1.50	- 23.31	11 43 11.96
30		4021 B.A.C.		11 46 19.63	- 0.12	23.46	- 1.54		11 46 41.43
31		4043 B.A.C.		11 51 19.74	- 0.14	23.46	- 1.51		11 51 41.55
32		4055 B.A.C.		11 53 26.27	- 0.13	23.46	- 1.55		11 53 48.05
33		4064 B.A.C.		11 56 1.73	- 0.12	23.46	- 1.58		11 56 23.49
34		4080 B.A.C.		11 59 30.67	- 0.17	+ 23.46	- 1.46		11 59 52.50

9 Companion equal sp.

25 Semi-diam. + 61°.13.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduc- tion to Mean R.A.	Clock Error by Observa- tion.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	April 16	4112 B.A.C.	5	12 5 8.52	+ 0.99	+ 23.46	- 8.83		12 5 24.14
2		4143 B.A.C.		12 12 3.14	+ 0.79	23.46	- 7.40		12 12 19.99
3		67 Gr. S.P.	3	12 21 51.48	- 3.01	23.46	+ 21.64	* 22.76	12 22 33.57
4		1937 Gr.	5	12 47 52.51	+ 2.12	23.46	- 17.66	* 22.81	12 48 0.43
5	18	32 Urs. Maj.		10 7 11.39	+ 0.36	23.33	- 3.32		10 7 31.76
6		β Leo Min.		10 19 11.14	+ 0.10	23.33	- 1.77		10 19 32.80
7		37 Urs. Maj.		10 25 30.56	+ 0.25	23.33	- 2.76		10 25 51.38
8		* 2° 39' S.P.	3	10 29 50.83	- 3.78	23.33	+ 28.94		10 30 39.32
9		34 Sextantis		10 34 49.24	- 0.03	23.33	- 1.25		10 35 11.29
10		55 Leonis		10 47 55.91	- 0.04	23.33	- 1.27		10 48 17.93
11		47 Urs. Maj.		10 51 2.09	+ 0.13	23.33	- 2.08	23.23	10 51 23.47
12		χ Leonis		10 57 13.29	- 0.02	23.33	- 1.39	23.42	10 57 35.21
13	19	A.Z. clxxxix. 93.		12 34 46.69	+ 0.46	23.33	- 5.17		12 35 5.31
14		1937 Gr.	3	12 47 52.55	+ 1.60	23.33	- 17.48	* 23.12	12 48 0.00
15		1940 Gr.	3	12 48 0.71	+ 1.60	23.33	- 17.47	* 22.61	12 48 8.17
16		θ Virginis		13 2 8.30	- 0.02	23.33	- 1.62	23.33	13 2 29.99
17		* 3° 50' S.P.	3	13 3 26.01	- 2.34	23.33	+ 25.43	* 22.89	13 4 12.43
18		59 Virginis <i>e</i>		13 9 15.97	+ 0.04	23.33	- 1.77		13 9 37.57
19		4473 B.A.C.		13 14 40.99	- 0.02	23.33	- 1.63	23.37	13 15 2.67
20		Spica		13 17 15.14	- 0.03	23.33	- 1.61	23.25	13 17 36.83
21		4509 B.A.C.		13 22 42.23	+ 0.07	23.33	- 1.93		13 23 3.70
22		* 9° 10' S.P.	3	13 28 27.79	+ 1.01	23.33	- 11.17		13 28 40.96
23		δ 1st L.		13 33 47.53	} - 0.03	23.33	.....		13 35 13.09
24		δ 2d L.		13 35 52.04					
25		A.Z. cc. 131.		13 57 51.43	+ 0.51	23.33	- 5.72		13 58 9.55
26		κ Virginis		14 4 51.57	- 0.03	23.33	- 1.66	23.43	14 5 13.21
27		4731 B.A.C.		14 8 56.66	+ 0.07	23.33	- 1.92		14 9 18.14
28		λ Virginis		14 10 57.96	- 0.04	23.33	- 1.65	23.26	14 11 19.60
29		4776 B.A.C.		14 17 8.19	- 0.09	23.33	- 2.14		14 17 29.29
30	21	62 Urs. Maj.		11 33 42.31	- 0.14	23.91	- 1.97		11 34 4.11
31		ξ Virginis		11 37 29.61	- 0.29	23.91	- 1.54	- 23.89	11 37 51.69
32		γ Urs. Maj.		11 45 53.50	+ 0.11	+ 23.92	- 3.01		11 46 14.52

April 21. Very hazy.

4 Very unsteady.
12 Cloudy.

24 + 0°.18 applied for defective illumination.

LAMP EAST.

Ref. No.	Date.	Star.	No of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	April 21	4043 B.A.C.		11 51 19.37	- 0.34	+ 23.92	- 1.49	- 23.93	11 51 41.46
2		α Corvi.....		12 0 37.40	- 0.49	23.92	- 1.35		12 0 59.48
3		δ Urs. Maj.		12 7 56.33	+ 0.16	23.92	- 3.38		12 8 17.03
4		10 Comæ.....	5	12 12 14.15	- 0.16	23.92	- 2.02		12 12 35.89
5		γ Comæ.....		12 19 23.74	- 0.16	23.92	- 2.03		12 19 45.47
6		δ Corvi.....		12 22 3.01	- 0.43	23.92	- 1.46		12 22 25.04
7		β Corvi.....		12 26 27.76	- 0.48	23.92	- 1.44		12 26 49.76
8		10 Can. Ven.		12 37 48.90	- 0.07	23.92	- 2.42	23.87	12 38 10.33
9		1937 Gr.	5	12 47 50.91	+ 2.68	23.92	- 17.34	* 23.54	12 48 0.17
10		1940 Gr.	5	12 47 58.81	+ 2.69	23.92	- 17.32	* 23.27	12 48 8.10
11		2 Urs. Min. S.P.	3	12 49 9.17	- 4.15	23.92	+ 21.20	* 23.46	12 49 50.14
12		4393 B.A.C.		13 0 38.19	- 0.16	23.93	- 2.09	23.98	13 0 59.87
13	23	47 Leo Min.		10 46 35.14	- 0.05	24.15	- 1.79	24.01	10 46 57.45
14		α Urs. Maj.		10 54 27.51	+ 0.25	24.15	- 3.31		10 54 48.60
15		θ Leonis.....		11 6 18.51	- 0.15	24.15	- 1.50	24.09	11 6 41.01
16		ξ Urs. Maj. (2d)		11 10 7.71	- 0.07	24.15	- 1.85		11 10 29.94
17		λ Crateris.....		11 15 51.16	- 0.32	24.15	- 1.18	24.34	11 16 13.81
18		88 Leonis.....		11 23 56.40	- 0.16	24.15	- 1.56		11 24 18.83
19		61 Urs. Maj.		11 33 5.67	- 0.05	24.15	- 2.02		11 33 27.75
20		3992 B.A.C.		11 40 51.80	- 0.16	24.15	- 1.62		11 41 14.17
21		γ Urs. Maj.		11 45 53.06	+ 0.13	24.15	- 2.98		11 46 14.36
22	24	3645 B.A.C.		10 31 9.73	+ 0.38	24.11	- 3.91		10 31 30.31
23		α Crateris.....		10 52 22.94	- 0.25	24.11	- 1.07		10 52 45.73
24		3779 B.A.C.		10 55 30.04	- 0.17	24.11	- 1.24	23.91	10 55 52.74
25		ξ Urs. Maj. (1st)		11 10 7.27	- 0.04	24.11	- 1.84		11 10 29.50
26		3863 B.A.C.	5	11 13 40.25	- 0.14	24.11	- 1.40		11 14 2.82
27		λ Crateris.....	5	11 15 51.04	- 0.26	24.11	- 1.17	24.39	11 16 13.72
28		83 Leonis (2d) ..		11 19 6.53	- 0.16	24.11	- 1.38	- 24.06	11 19 29.10
29		γ Urs. Maj.		11 45 53.13	+ 0.12	24.11	- 2.96		11 46 14.40
30		67 Urs. Maj.		11 54 25.83	+ 0.03	24.11	- 2.42		11 54 47.55
31		4080 B.A.C.		11 59 29.91	- 0.20	24.11	- 1.44		11 59 52.38
32		A.Z. clxxxii. 84..		12 3 10.19	+ 0.38	24.11	- 4.94		12 3 29.74
33		10 Com. Ber.		12 12 13.89	- 0.04	+ 24.11	- 2.01		12 12 35.95

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduc- tion to Mean R.A.	Clock Error by Observa- tion.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	April 24	A.Z. clxxxix. 77.		12 22 0.17	+ 0.39	+ 24.11	- 5.11		12 22 19.56
2		A.Z. clxxxix. 93.		12 34 45.96	+ 0.38	24.11	- 5.08		12 35 5.37
3		1937 Gr.	3	12 47 50.38	+ 1.83	24.11	- 17.09	* 24.67	12 47 59.23
4		1940 Gr.	3	12 47 59.05	+ 1.84	24.11	- 17.07	* 23.63	12 48 7.93
5		* 3° 50' S.P.	3	13 3 26.18	- 3.16	24.11	+ 24.83	* 24.14	13 4 11.96
6		84 Virginis o		13 35 27.41	- 0.16	24.11	- 1.76	24.05	13 35 49.60
7		τ Boötis		13 40 3.33	- 0.10	24.11	- 1.93	24.12	13 40 25.41
8	May 3	7 Virginis b		11 52 12.70	- 0.02	23.39	- 1.47		11 52 34.60
9		4064 B.A.C.		11 56 1.79	- 0.14	23.39	- 1.50		11 56 23.54
10		α Corvi		12 0 37.81	- 0.29	23.39	- 1.29		12 0 59.62
11		ε Corvi	5	12 2 21.79	- 0.28	23.39	- 1.31		12 2 43.59
12		4119 B.A.C.		12 6 31.17	- 0.20	23.39	- 1.43		12 6 52.93
13		13 Virginis		12 10 55.83	- 0.17	23.39	- 1.50		12 11 17.55
14		Weisse xii. 276 .		12 17 24.57	- 0.22	23.39	- 1.44	23.56	12 17 46.30
15		δ Corvi		12 22 3.44	- 0.25	23.39	- 1.45		12 22 25.15
16		β Can. Ven.		12 26 32.90	+ 0.07	23.39	- 2.39	23.21	12 26 53.97
17		χ Virginis		12 31 27.34	- 0.20	23.39	- 1.52		12 31 49.01
18		10 Can. Ven.		12 37 49.17	+ 0.05	23.39	- 2.35	23.41	12 38 10.26
19		ε Virginis	5	12 54 39.09	- 0.12	23.39	- 1.77		12 55 0.59
20		9 A.Z. clxxxii. 84..		12 3 11.06	+ 0.57	22.47	- 4.44		12 3 29.66
21		Weisse xii. 276 .		12 17 25.30	- 0.22	22.47	- 1.41	22.80	12 17 46.14
22		A.Z. clxxxix. 77	5	12 22 1.03	+ 0.58	22.47	- 4.65		12 22 19.43
23		χ Virginis		12 31 28.19	- 0.20	22.48	- 1.49		12 31 48.98
24		33 Virginis		12 38 42.84	- 0.11	22.48	- 1.69		12 39 3.52
25		33 Com. Ber. ...		12 44 52.39	- 0.07	22.48	- 1.81		12 45 12.99
26		1937 Gr.	3	12 47 50.17	+ 2.49	22.48	- 15.43	* 22.56	12 47 59.71
27		Polaris (com.) S.P.	3	13 5 10.80	- 10.56	22.48	+ 59.16		13 6 21.88
28		Polaris S.P.	3	13 5 36.80	- 10.61	22.48	+ 59.68	* 22.58	13 6 48.35
29		Spica		13 17 16.16	- 0.22	22.48	- 1.65	22.46	13 17 36.77
30		75 Virginis		13 24 49.70	- 0.25	22.48	- 1.66		13 25 10.27
31		24 Can. Ven.		13 28 14.36	+ 0.17	22.48	- 2.87	22.27	13 28 34.14
32		84 Virginis o		13 35 29.00	- 0.14	22.48	- 1.80	22.48	13 35 49.54
33		η Urs. Maj.		13 41 32.10	+ 0.17	+ 22.48	- 2.90	- 22.39	13 41 51.85

32 Cloudy.

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.			h. m. s.		
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	May 10	4682 B.A.C.		13 57 3.31	- 0.25	+ 22.35	- 1.77		13 57 23.64		
2		96 Virginis		14 1 0.16	- 0.22	22.35	- 1.79		14 1 20.50		
3		97 Virginis		14 4 32.93	- 0.26	22.35	- 1.80		14 4 53.22		
4		Arcturus		14 8 45.36	- 0.07	22.35	- 2.02	- 22.45	14 9 5.62		
5		24 Boötis <i>g</i>		14 23 17.84	+ 0.14	22.35	- 2.95	22.21	14 23 37.38		
6		σ Boötis		14 28 4.51	- 0.01	22.35	- 2.25		14 28 24.60		
7		π Boötis (1st)...		14 33 37.41	- 0.09	22.35	- 2.03		14 33 57.64		
8		ϵ Boötis		14 38 21.86	- 0.03	22.35	- 2.19	22.30	14 38 41.99		
9		8 Libræ		14 42 23.40	- 0.25	22.35	- 1.88		14 42 43.62		
10		* 101° 47'	5	14 44 42.93	- 0.23	22.35	- 1.88		14 45 3.17		
11		ξ^2 Libræ		14 48 37.39	- 0.22	22.35	- 1.89	22.43	14 48 57.63		
12		44 Boötis (1st) ..		14 58 42.90	+ 0.12	22.35	- 2.80		14 59 2.57		
13		δ Boötis	6	15 9 22.07	+ 0.01	22.35	- 2.32		15 9 42.11		
14	13	13 Virginis		12 10 56.53	- 0.16	22.40	- 1.44		12 11 17.33		
15		4184 B.A.C.		12 17 39.74	- 0.08	22.40	- 1.80		12 18 0.26		
16		20 Com. Ber.		12 22 8.54	- 0.09	22.40	- 1.77		12 22 29.08		
17		β Can. Ven.		12 26 33.91	- 0.01	22.40	- 2.28	22.17	12 26 54.02		
18		33 Virginis		12 38 42.94	- 0.13	22.40	- 1.67		12 39 3.54		
19		11 Can. Ven.		12 41 43.90	+ 0.02	22.40	- 2.65	22.50	12 42 3.67		
20		12 Can. Ven. (2d)		12 48 57.06	- 0.02	22.40	- 2.29	22.48	12 49 17.15		
21		Polaris, S.P.	3	13 5 35.64	- 6.14	22.40	+ 57.49	* 21.46	13 6 49.39		
22		2006 Gr.	3	13 12 27.56	+ 5.44	22.40	- 54.70	* 21.50	13 12 0.70		
23		75 Virginis		13 24 49.79	- 0.22	22.40	- 1.66		13 25 10.31		
24		24 Can. Ven.		13 28 14.26	+ 0.03	22.40	- 2.83	22.47	13 28 33.86		
25		η Boötis		13 47 29.44	- 0.11	22.40	- 2.00	22.44	13 47 49.73		
26		4682 B.A.C.		13 57 3.19	- 0.22	22.40	- 1.78		13 57 23.59		
27		97 Virginis		14 4 32.79	- 0.20	22.40	- 1.81		14 4 53.18		
28		4731 B.A.C.		14 8 57.84	- 0.11	22.40	- 2.05	22.32	14 9 18.08		
29		4769 B.A.C.		14 16 30.41	- 0.15	22.40	- 1.92		14 16 50.74		
30	19	33 Virginis		12 38 43.69	- 0.11	21.50	- 1.64		12 39 3.44		
31		11 Can. Ven.		12 41 44.73	+ 0.07	21.50	- 2.56	21.53	12 42 3.74		
32		ϵ Virginis		12 54 40.86	- 0.11	21.50	- 1.72		12 55 0.53		
33		4393 B.A.C.		13 0 40.56	- 0.04	+ 21.50	- 2.00	- 21.40	13 1 0.02		

May 13. Passing clouds.

9 Cloudy after this transit.

LAMP EAST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	May 19	Polaris S.P.	3	13 5 40.47	- 7.29	+ 21.50	+ 53.84	- * 21.43	13 6 48.52
2		2006 Gr.	3	13 12 23.56	+ 6.54	21.50	- 51.51	* 21.21	13 12 0.09
3		Spica		13 17 17.06	- 0.20	21.50	- 1.64	21.53	13 17 36.72
4		85 Virginis		13 37 30.74	- 0.21	21.50	- 1.71		13 37 50.32
5		τ Boötis		13 40 5.76	- 0.08	21.50	- 1.96	21.70	13 40 25.22
6		A. Z. cc. 131		13 57 53.09	+ 0.42	21.50	- 5.29		13 58 9.72
7		4731 B.A.C.		14 8 58.79	- 0.08	21.50	- 2.05	21.34	14 9 18.16
8		4769 B.A.C.		14 16 31.16	- 0.14	21.50	- 1.93		14 16 50.59
9		σ Boötis		14 28 5.47	- 0.03	21.50	- 2.26		14 28 24.68
10		π Boötis (1st)...		14 33 38.91	- 0.09	21.50	- 2.06		14 33 58.26
11		54 Hydræ (1st) .		14 37 21.24	- 0.26	21.50	- 1.96		14 37 40.52
12		4911 B.A.C.		14 45 30.24	- 0.27	21.50	- 2.01		14 45 49.46
13		4923 B.A.C. (2d).		14 48 44.70	- 0.24	21.50	- 1.98		14 49 3.98
14		* 99° 44'		14 54 45.24	- 0.20	21.50	- 1.96		14 55 4.58
15		ϵ^1 Libræ		15 3 41.96	- 0.23	21.50	- 2.01		15 4 1.22
16		δ Boötis		15 9 22.99	- 0.03	21.50	- 2.36		15 9 42.10
17		ζ^1 Libræ	4	15 19 49.30	- 0.21	21.49	- 2.03		15 20 8.55
18		5117 B.A.C.		15 25 2.90	- 0.26	21.49	- 2.16		15 25 21.97
19		41 Libræ		15 30 18.27	- 0.23	21.49	- 2.07		15 30 37.46
20		κ Libræ		15 33 20.13	- 0.23	21.49	- 2.08		15 33 39.31
21		α Serpentis		15 36 51.40	- 0.14	21.49	- 2.05	21.51	15 37 10.70
22		Δ 1st L.		15 43 20.61	} - 0.24	21.49	.....		15 44 50.43
23		Δ 2d L.		15 45 37.74					
24		49 Serpentis (1st)		16 6 16.40	- 0.11	21.49	- 2.08		16 6 35.70
25		σ Scorpii		16 12 7.41	- 0.26	21.49	- 2.19		16 12 26.45
26		5465 B.A.C.		16 15 20.40	- 0.26	21.49	- 2.22		16 15 39.41
27	20	ϵ Urs. Maj.		12 47 22.51	+ 0.16	21.43	- 2.99		12 47 41.11
28		4363 B.A.C.		12 53 49.97	- 0.10	21.43	- 1.62		12 54 9.68
29		θ Virginis		13 2 10.19	- 0.12	21.43	- 1.60	21.52	13 2 29.90
30		Polaris S.P.	3	13 5 40.30	- 6.34	21.43	+ 53.20	* 21.29	13 6 48.59
31		59 Virginis e		13 9 18.16	- 0.07	21.43	- 1.75		13 9 37.77
32		2006 Gr.	3	13 12 23.89	+ 5.74	21.43	- 50.95	* 21.12	13 12 0.11
33		Spica		13 17 17.07	- 0.14	21.43	- 1.64	- 21.46	13 17 36.72
34		4509 B.A.C.	5	13 22 44.21	- 0.04	+ 21.43	- 1.92		13 23 3.68
May 20. A very bazy night.									
10 Companion (5.5). 11 Companion (7.5) nf. 13 Companion (8.5) np. 16-18 Cloudy.					22 Correction for defective illumination = 0°.00. 24 Companion (7.0) sf. 26 Very faint.				

LAMP EAST.									
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					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	May 20	24 Can. Ven.		13 28 15.30	+ 0.10	+ 21.43	- 2.76	- 21.29	13 28 34.07
2		85 Virginis		13 37 30.70	- 0.16	21.43	- 1.71		13 37 50.26
3		7 Urs. Maj.		13 41 33.03	+ 0.10	21.43	- 2.80	21.43	13 41 51.76
4		4731 B.A.C.		14 8 58.79	- 0.04	21.43	- 2.05	21.30	14 9 18.13
5		4769 B.A.C.		14 16 31.29	- 0.09	21.43	- 1.94		14 16 50.69
6		ρ Boötis		14 25 18.26	0.00	21.43	- 2.27		14 25 37.42
7		π Boötis (1st)...		14 33 38.36	- 0.05	21.43	- 2.07		14 33 57.67
8		ϵ Draconis	5	15 21 26.16	+ 0.19	21.43	- 3.47		15 21 44.31
9		5215 B.A.C.		15 39 14.61	- 0.21	21.43	- 2.19		15 39 33.64
10		3 Scorpil		15 45 42.11	- 0.19	21.43	- 2.16		15 46 1.19
11		π Scorpil		15 49 49.86	- 0.21	21.43	- 2.18		15 50 8.90
12		51 Libræ (1st) ..		15 56 8.07	- 0.14	21.43	- 2.07		15 56 27.29
13		13 Scorpil ϵ^2		16 3 7.41	- 0.21	21.43	- 2.22		16 3 26.41
14		49 Scorpil (2d) .		16 6 16.67	- 0.06	21.43	- 2.09		16 6 35.95
15		σ Scorpil		16 12 7.53	- 0.19	21.43	- 2.21		16 12 26.56
16		5487 B.A.C.		16 18 10.59	- 0.21	21.43	- 2.27		16 18 29.54
17		Antares		16 20 16.07	- 0.21	21.43	- 2.23	21.49	16 20 35.06
18		7 Scorpil		16 26 36.41	- 0.21	21.43	- 2.26		16 26 55.37
19		38 Herculis		16 34 4.24	- 0.09	21.43	- 2.04		16 34 23.54
20		D 2d L.		16 41 55.16	- 0.21	21.43	.....		16 41 5.37
21		Weisse xvi. 962.		16 50 52.04	- 0.16	21.43	- 2.09		16 51 11.22
22		ϵ Urs. Min.	5	17 0 39.67	+ 1.10	21.43	- 9.17		17 0 53.03
23		36 Ophiuchi A...		17 6 10.76	- 0.21	21.43	- 2.25		17 6 29.73
24		θ Ophiuchi		17 12 51.01	- 0.19	21.43	- 2.22	21.50	17 13 10.03
25		5873 B.A.C.		17 16 45.51	- 0.21	21.43	- 2.26		17 17 4.47
26	22	Polaris	3	13 5 42.30	- 6.93	21.57	+ 51.90	* 21.18	13 6 48.84
27		ζ Urs. Maj. (1st)	5	13 17 48.70	+ 0.10	21.57	- 3.03		13 18 7.34
28		2007 Gr.	3	13 20 32.17	+ 2.71	21.57	- 18.17	* 21.21	13 20 38.28
29		4515 B.A.C.		13 24 3.24	- 0.18	21.57	- 1.71		13 24 22.92
30		* 9° 10'	3	13 28 28.59	+ 0.92	21.57	- 9.34		13 28 41.74
31		4682 B.A.C.		13 57 4.11	- 0.23	21.57	- 1.79		13 57 23.66
32		A. Z. cciv. 80....		14 1 57.58	+ 0.29	21.57	- 4.51		14 2 14.93
33		4719 B.A.C.		14 6 22.17	- 0.29	21.57	- 1.86		14 6 41.59
34		Arcturus		14 8 46.23	- 0.10	+ 21.57	- 2.03	- 21.62	14 9 5.67
20 Semi-diam. — 71 ^s .01.					23 First star.				

LAMP EAST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	May 22	σ Boötis		14 28 5.41	- 0.05	+ 21.57	- 2.26		14 28 24.67
2		π Boötis (2d) ...		14 33 38.89	- 0.11	21.57	- 2.07		14 33 58.28
3		ϵ Boötis.....		14 38 22.73	- 0.07	21.57	- 2.22	- 21.50	14 38 42.01
4		ξ Boötis (2d) ...		14 44 25.71	- 0.10	21.57	- 2.12		14 44 45.06
5		4923 B.A.C. (1st).	5	14 48 43.99	- 0.25	21.57	- 1.99		14 49 3.32
6		* 99° 44'		14 54 45.23	- 0.21	21.57	- 1.98		14 55 4.61
7		ϵ^1 Libræ		15 3 41.97	- 0.25	21.57	- 2.04		15 4 1.25
8		β Libræ		15 8 56.57	- 0.20	21.57	- 2.01	21.50	15 9 15.93
9		S Serpentis		15 14 35.97	- 0.12	21.57	- 2.11		15 14 55.31
10		ζ^1 Libræ		15 19 49.23	- 0.23	21.57	- 2.06	21.66	15 20 8.51
11	24	18 Can. Ven.		13 4 37.27	- 0.01	21.24	- 2.30	21.10	13 4 56.20
12		59 Virginis <i>c</i>		13 9 18.34	- 0.14	21.24	- 1.74		13 9 37.70
13		A. Z. civ. 16....	5	13 13 8.14	+ 0.29	21.24	- 4.27		13 13 25.40
14		Spica		13 17 17.21	- 0.22	21.24	- 1.62	21.38	13 17 36.61
LAMP WEST.									
15	28	* 11° 36'	5	13 41 45.78	+ 0.25	20.72	- 7.25		13 41 59.50
16		η Boötis		13 47 30.81	+ 0.14	20.72	- 1.97	20.79	13 47 49.70
17		* 12° 59'	5	13 53 34.78	+ 0.24	20.72	- 6.65		13 53 49.09
18		A. Z. civ. 79....		14 1 7.47	+ 0.20	20.72	- 4.16		14 1 24.23
19		A. Z. civ. 78....	5	14 1 27.30	+ 0.20	20.72	- 4.17		14 1 44.05
20		26118 Lalande ..		14 8 1.01	+ 0.13	20.72	- 2.05	20.60	14 8 19.81
21		* 3° 35'..... S.P.	3	14 19 43.14	- 0.26	20.72	+ 20.77	* 21.10	14 20 24.37
22		σ Boötis		14 28 6.07	+ 0.14	20.72	- 2.25		14 28 24.68
23		ϵ Boötis		14 38 23.11	+ 0.14	20.72	- 2.22	20.91	14 38 41.75
24		δ Libræ		14 42 24.97	+ 0.11	20.72	- 1.98	20.59	14 42 43.82
25		2210 Gr.	3	14 58 20.20	+ 0.55	20.72	- 23.37	* 20.45	14 58 18.10
26		2213 Gr.	3	15 6 34.12	+ 0.39	20.72	- 14.99	* 20.58	15 6 40.24
27		642 Gr. S.P.	3	15 19 6.30	- 0.24	20.72	+ 19.42	* 20.18	15 19 46.20
28		5117 B.A.C.		15 25 3.49	+ 0.10	20.72	- 2.18		15 25 22.13
29	June 2	β Libræ		15 8 57.16	+ 0.12	20.59	- 2.07	20.65	15 9 15.80
30		S Serpentis		15 14 36.57	+ 0.13	20.59	- 2.15		15 14 55.14
31		ζ^1 Libræ		15 19 50.07	+ 0.11	+ 20.59	- 2.13	- 20.55	15 20 8.64

14 Cloudy after this observation.

15 Hardly visible in the strong twilight.

LAMP WEST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	June 2	5117 B.A.C.		15 25 3.73	+ 0.11	+ 20.59	- 2.21		15 25 22.22
2		α Cor. Bor.		15 28 17.04	+ 0.13	20.59	- 2.28	- 20.68	15 28 35.48
3		α Serpenti		15 36 52.26	+ 0.12	20.59	- 2.14	20.48	15 37 10.83
4		1 Scorpii b.		15 42 1.36	+ 0.11	20.59	- 2.28		15 42 19.78
5		π Scorpii		15 49 50.60	+ 0.11	20.59	- 2.31		15 50 8.99
6	3	96 Virginis		14 1 1.69	+ 0.12	20.66	- 1.80		14 1 20.67
7		97 Virginis		14 4 34.44	+ 0.12	20.66	- 1.82		14 4 53.40
8		26118 Lalande ..		14 8 1.01	+ 0.14	20.66	- 2.03	20.57	14 8 19.78
9		* 3° 35' S.P.	3	14 19 44.64	+ 0.08	20.66	+ 19.27	* 20.76	14 20 24.65
10		* 1° 56' S.P.	3	14 32 30.36	+ 0.29	20.66	- 38.72	* 20.88	14 32 12.59
11		ϵ Libræ		15 3 42.61	+ 0.12	20.66	- 2.09		15 4 1.30
12		5116 B.A.C.		15 24 50.61	+ 0.16	20.66	- 3.66		15 25 7.77
13		α Cor. Bor.		15 28 17.04	+ 0.14	20.66	- 2.28	20.67	15 28 35.56
14		κ Libræ		15 33 20.83	+ 0.12	20.66	- 2.20		15 33 39.41
15		α Serpenti		15 36 52.01	+ 0.13	20.66	- 2.15	20.73	15 37 10.65
16		1 Scorpii b.		15 42 1.10	+ 0.12	20.66	- 2.29		15 42 19.59
17	5	4719 B.A.C.		14 6 22.44	+ 0.06	21.03	- 1.85		14 6 41.68
18		51 Hydre		14 14 29.36	+ 0.07	21.03	- 1.89		14 14 48.57
19		θ Boötis		14 19 59.43	+ 0.17	21.03	- 2.84	20.93	14 20 17.79
20		24 Boötis g.	4	14 23 18.73	+ 0.16	21.03	- 2.76	21.11	14 23 37.16
21		33 Boötis	5	14 33 10.11	+ 0.15	21.03	- 2.58	21.06	14 33 28.71
22	10	α^2 Libræ		14 42 34.71	- 0.04	22.52	- 2.00	22.57	14 42 55.19
23		642 Gr. S.P.	3	15 19 8.53	- 2.17	22.52	+ 16.91	* 22.39	15 19 45.79
24		37 Libræ		15 25 58.47	- 0.02	22.52	- 2.15		15 26 18.82
25		α Cor. Bor.		15 28 15.31	+ 0.09	22.52	- 2.29	22.46	15 28 35.63
26		5188 B.A.C.		15 35 0.51	- 0.04	22.52	- 2.21		15 35 20.78
27		5215 B.A.C.		15 39 13.63	- 0.08	22.52	- 2.35		15 39 33.72
28		1 Scorpii b.		15 41 59.44	- 0.07	22.52	- 2.36		15 42 19.53
29		θ Libræ		15 45 17.79	- 0.04	22.52	- 2.25	22.53	15 45 38.02
30		γ Serpenti		15 49 28.11	+ 0.06	22.52	- 2.23		15 49 48.46
31		49 Libræ		15 51 54.93	- 0.04	22.52	- 2.27		15 52 15.14
32		* 4° 18' S.P.	3	16 6 16.29	+ 1.99	+ 22.52	- 16.62	- * 22.46	16 6 24.18

June 10. A hazy night.

23 Very unsteady.

27 Hardly visible.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	June 14	37 Libræ		15 26 58.23	— 0.07	+ 22.50	— 2.16		15 27 18.50
2		41 Libræ		15 30 17.13	— 0.10	22.50	— 2.23		15 30 37.30
3		5188 B.A.C.		15 35 0.36	— 0.08	22.50	— 2.22		15 35 20.56
4		49 Libræ		15 51 54.71	— 0.08	22.50	— 2.29		15 52 14.84
5		51 Libræ (1st) ..		15 56 6.94	— 0.07	22.50	— 2.27		15 56 27.10
6		13 Scorpii c ²		16 3 6.27	— 0.13	22.50	— 2.47		16 3 26.17
7		δ Ophiuchi		16 6 27.93	— 0.04	22.50	— 2.26	— 22.57	16 6 48.13
8		ε Ophiuchi		16 10 22.07	— 0.05	22.50	— 2.28		16 10 42.24
9		19 Urs. Min.	5	16 14 42.08	+ 0.72	22.50	— 5.72		16 14 59.58
10		η Urs. Min.	5	16 21 28.62	+ 0.71	22.50	— 5.65		16 21 46.18
11		5560 B.A.C.		16 30 4.26	+ 0.31	22.50	— 3.34		16 30 23.73
12		ζ Herculis		16 35 31.40	+ 0.10	22.50	— 2.41	22.39	16 35 51.59
13		η Herculis		16 37 37.53	+ 0.12	22.50	— 2.52	22.53	16 37 57.63
14	16	δ 1st L.		16 16 46.01	— 0.15	22.82	.....		16 18 19.06
15		Antares		16 20 14.80	— 0.16	22.82	— 2.52	23.00	16 20 34.94
16		β Ophiuchi		17 36 1.24	— 0.04	22.83	— 2.36	22.80	17 36 21.67
17		87 Herculis		17 42 38.26	+ 0.05	22.83	— 2.41		17 42 58.73
18		6065 B.A.C.		17 47 41.91	— 0.11	22.84	— 2.60		17 48 2.04
19		γ Draconis		17 52 55.63	+ 0.21	22.84	— 2.67	22.70	17 53 16.01
20		6124 B.A.C.		17 57 56.43	— 0.08	22.84	— 2.46		17 58 16.73
21	17	2213 Gr.	5	15 6 28.29	+ 2.07	23.11	— 12.27	* 22.01	15 6 41.20
22		642 Gr. S.P.	3	15 19 11.53	— 3.08	23.11	+ 15.23	* 21.98	15 19 46.79
23		δ Serpents (1st)		15 27 34.57	— 0.01	23.11	— 2.16		15 27 55.51
24		α Serpents	6	15 36 49.66	— 0.03	23.11	— 2.18	23.27	15 37 10.56
25		χ Herculis	4	15 47 21.28	+ 0.13	23.11	— 2.56	23.01	15 47 41.96
26		γ Herculis		16 15 13.29	+ 0.02	23.12	— 2.30	23.17	16 15 34.13
27		36 Ophiuchi A...		17 6 9.80	— 0.18	23.13	— 2.68		17 6 30.07
28		δ 1st L.	4	17 16 2.37	— 0.18	23.13	.....		17 17 38.17
29		87 Herculis		17 42 38.11	+ 0.05	23.13	— 2.40		17 42 58.89
30		γ Draconis		17 52 55.30	+ 0.21	23.13	— 2.67	23.03	17 53 15.97
31		6124 B.A.C.		17 57 56.33	— 0.09	23.14	— 2.48		17 58 16.90
32	20	ξ Ophiuchi		17 12 2.14	— 0.06	+ 23.23	— 2.63	— 23.27	17 12 22.68

June 14. Cloudy and very unsteady.

16. Very cloudy.

9 Very cloudy.

14 Semi-diam. + 70^s.38.

23 South star.

24 Cloudy after 15^h 30^m.

27 Second star.

28 Semi-diam. + 72^s.85.

LAMP WEST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	June 20	5873 B.A.C.		17 16 44.09	— 0.09	+ 23.23	— 2.76		17 17 44.4
2		5896 B.A.C.	5	17 19 25.45	— 0.08	23.23	— 2.73		17 19 45.87
3		β Draconis.....		17 26 50.37	+ 0.18	23.23	— 2.77		17 27 11.01
4		27 Draconis f....		17 32 13.33	+ 0.35	23.23	— 3.72		17 32 33.19
5		84 Hercules		17 37 6.13	+ 0.07	23.23	— 2.37		17 37 27.06
6		6030 B.A.C.		17 42 11.79	+ 0.05	23.23	— 2.36	— 23.14	17 42 32.71
7		63 Ophiuchi		17 45 42.19	— 0.08	23.23	— 2.77		17 46 2.57
8		γ Draconis		17 52 55.10	+ 0.18	23.23	— 2.69	23.28	17 53 15.82
9		6124 B.A.C.		17 57 56.03	— 0.02	23.23	— 2.51		17 58 16.73
10		100 Hercules.....		18 1 40.46	+ 0.07	23.23	— 2.36		18 2 14.0
11	23	5116 B.A.C.	6	15 24 47.21	+ 0.36	23.60	— 3.27		15 25 7.90
12		η Ophiuchi		17 1 46.29	+ 0.04	23.61	— 2.55	23.55	17 2 7.39
13		31308 Lalande ..		17 4 58.04	+ 0.16	23.61	— 2.39		17 5 19.42
14		ξ Ophiuchi	4	17 12 1.53	+ 0.02	23.61	— 2.65	23.82	17 12 22.51
15		73 Hercules	5	17 17 43.78	+ 0.16	23.61	— 2.39		17 18 5.16
16		α Ophiuchi		17 27 53.86	+ 0.12	23.61	— 2.39	23.47	17 28 15.20
17	25	δ Serpentis		15 27 33.64	+ 0.09	24.07	— 2.14		15 27 55.66
18		5184 B.A.C.		15 34 19.01	+ 0.08	24.07	— 2.22		15 34 40.94
19		χ Hercules.....		15 47 20.27	+ 0.10	24.07	— 2.50	23.99	15 47 41.94
20		5312 B.A.C.		15 54 9.01	+ 0.07	24.07	— 2.43		15 54 30.72
21		δ Ophiuchi		16 6 26.30	+ 0.08	24.08	— 2.30	24.12	16 6 48.16
22		ϵ Ophiuchi		16 10 20.44	+ 0.08	24.08	— 2.31		16 10 42.29
23		η Draconis		16 21 41.83	+ 0.13	24.08	— 3.24		16 22 2.80
24		τ Scorpii.....		16 26 34.03	+ 0.07	24.08	— 2.62		16 26 55.56
25		5579 B.A.C.		16 32 53.10	+ 0.07	24.08	— 2.49		16 33 14.76
26		η Hercules		16 37 35.87	+ 0.11	24.08	— 2.50	24.18	16 37 57.56
27		5658 B.A.C.		16 43 33.07	+ 0.11	24.09	— 2.92		16 43 54.35
28		* 4° 28' S.P.	3	16 54 49.02	— 0.07	24.09	+ 11.11	* 23.86	16 55 24.15
29		η Ophiuchi		17 1 45.80	+ 0.08	24.09	— 2.56	24.01	17 2 7.41
30		* 5° 6'	3	17 6 55.96	+ 0.26	24.09	— 11.74	— * 23.80	17 7 8.57
31	27	45 Boötis c.....		15 0 35.87	+ 0.02	24.94	— 2.12		15 0 58.71
32		δ Serpentis		15 27 32.83	— 0.02	+ 24.95	— 2.14		15 27 55.62
10 North star. 11—16 Very cloudy.					17 North star. 32 North star.				

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.					
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	June 27	ψ Serpentis		15 36 24.84	- 0.04	+ 24.95	- 2.16		15 36 47.59		
2		κ Cor. Bor.		15 45 25.90	+ 0.06	24.96	- 2.36		15 45 48.56		
3		* 4° 42'	3	15 49 50.67	+ 1.59	24.96	- 12.51	- * 24.85	15 50 4.71		
4		5 Herculis <i>r</i>		15 54 23.69	0.00	24.96	- 2.24		15 54 46.41		
5		τ Cor. Bor.	5	16 3 19.93	+ 0.05	24.96	- 2.41		16 3 42.53		
6		δ Ophiuchi		16 6 25.64	- 0.07	24.96	- 2.30	24.93	16 6 48.23		
7		5453 B.A.C.		16 13 24.64	+ 0.28	24.96	- 3.58		16 13 46.30		
8		η Draconis	3	16 21 41.26	+ 0.21	24.97	- 3.21		16 22 3.23		
9		* 3° 56'..... S.P.	2	16 29 54.30	- 1.97	24.97	+ 12.54	* 24.92	16 30 29.84		
10		η Herculis.....		16 37 35.19	+ 0.07	24.97	- 2.50	24.90	16 37 57.73		
11		69 Herculis <i>e</i>		17 12 19.86	+ 0.05	24.98	- 2.57	25.08	17 12 42.32		
12	28	δ Serpentis		15 27 32.36	- 0.03	25.31	- 2.13		15 27 55.51		
13		5177 B.A.C.		15 33 16.71	+ 0.06	25.31	- 2.53	25.39	15 33 39.55		
14		5249 B.A.C.		15 44 6.77	+ 0.15	25.32	- 3.20		15 44 29.04		
15		51 Lihre (3d)...		15 56 4.80	- 0.07	25.32	- 2.29		15 56 27.76		
16		* 4° 18'	3	16 6 9.83	+ 1.18	25.32	- 13.48	* 26.59	16 6 22.85		
17		γ Herculis.....		16 15 11.09	- 0.01	25.32	- 2.30	25.40	16 15 34.10		
18		η Draconis	3	16 21 40.66	+ 0.14	25.33	- 3.19		16 22 2.94		
19		τ Scorpil		16 26 33.00	- 0.10	25.33	- 2.63		16 26 55.60		
20		* 3° 56'..... S.P.	3	16 29 52.17	- 1.35	25.33	+ 12.32	* 26.65	16 30 28.47		
21		15 Ophiuchi		16 36 6.69	- 0.09	25.33	- 2.59		16 36 29.34		
22		5673 B.A.C.		16 45 8.06	- 0.10	25.33	- 2.67		16 45 30.62		
23		κ Ophiuchi		16 50 28.31	- 0.03	25.33	- 2.37		16 50 51.24		
24		31 Ophiuchi	6	16 55 30.00	- 0.10	25.33	- 2.71		16 55 52.52		
25		ϵ Urs. Min.	3	17 0 35.32	+ 0.64	25.34	- 7.93		17 0 53.37		
26		5800 B.A.C.		17 4 53.84	- 0.10	25.34	- 2.80		17 5 16.28		
27		5815 B.A.C.	6	17 7 13.90	- 0.10	25.34	- 2.75		17 7 36.39		
28		69 Herculis <i>e</i>		17 12 19.63	+ 0.03	25.34	- 2.49	25.25	17 12 42.51		
29		α Ophiuchi		17 27 52.23	- 0.02	25.34	- 2.42	25.27	17 28 15.13		
30	July 1	τ^5 Serpentis		15 29 26.94	+ 0.11	26.29	- 2.14		15 29 51.20		
31		5177 B.A.C.		15 33 15.59	+ 0.18	26.29	- 2.49	- 26.35	15 33 39.57		
32		5249 B.A.C.		15 44 5.81	+ 0.26	26.30	- 3.12		15 44 29.25		
33		ϵ Ophiuchi.....		16 10 18.31	+ 0.07	+ 26.30	- 2.31		16 10 42.37		

8-9 Cloudy.
12. South star.

22 * (7.5) 2' nf. 11°.

LAMP WEST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	July 1	γ Herculis.....		16 15 10.10	+ 0.12	+ 26.30	- 2.29	- 26.25	16 15 34.23
2		η Urs. Min.....	5	16 21 24.30	+ 0.43	26.30	- 4.87		16 21 46.16
3		* 3° 56'..... S.P.	3	16 29 53.32	- 1.12	26.31	+ 11.60	* 25.99	16 30 30.11
4		* 5° 6'.....	5	17 6 52.18	+ 1.04	26.31	- 10.97	* 26.03	17 7 8.56
5		α Ophiuchi		17 27 51.07	+ 0.10	26.32	- 2.44	26.33	17 28 15.05
6		27 Draconis f....	5	17 32 10.02	+ 0.50	26.32	- 3.58		17 32 33.06
7		ν Ophiuchi		17 50 42.30	+ 0.06	26.32	- 2.64	26.30	17 51 6.04
8		θ Draconis.....	2	15 58 48.13	+ 0.21	26.56	- 2.91		15 59 11.99
9		5453 B.A.C.		16 13 22.83	+ 0.31	26.57	- 3.43		16 13 46.28
10		η Urs. Min.....		16 21 23.59	+ 0.55	26.57	- 4.82		16 21 45.89
11		* 3° 56'..... S.P.	3	16 29 54.22	- 1.99	26.57	+ 11.35	* 26.21	16 30 30.15
12		κ Ophiuchi		16 50 26.99	0.00	26.57	- 2.37		16 50 51.19
13		ϵ Herculis		16 54 22.64	+ 0.07	26.57	- 2.42	26.61	16 54 46.86
14		61 Herculis c....	5	16 57 55.95	+ 0.09	26.58	- 2.45		16 58 20.17
15		* 5° 6'.....	3	17 6 51.31	+ 1.52	26.58	- 10.83	* 26.28	17 7 8.58
16		73 Herculis		17 17 41.07	+ 0.05	26.58	- 2.41		17 18 5.29
17		α Ophiuchi		17 27 50.99	+ 0.02	26.58	- 2.44	26.49	17 28 15.15
18		27 Draconis f....	5	17 32 9.42	+ 0.34	26.58	- 3.56		17 32 32.78
19		μ Herculis		17 40 25.26	+ 0.05	26.58	- 2.44	26.63	17 40 49.45
20		5249 B.A.C.		15 44 4.44	+ 0.23	27.40	- 3.00		15 44 29.07
21		5312 B.A.C.		15 54 5.93	- 0.01	27.40	- 2.42		15 54 30.90
22		θ Draconis		15 58 47.07	+ 0.19	27.40	- 2.84		15 59 11.82
23		* 4° 17'.....	2	16 6 6.41	+ 1.21	27.40	- 11.93		16 6 23.09
24		δ Ophiuchi		16 6 23.09	+ 0.03	27.40	- 2.28	27.36	16 6 48.24
25		σ Scorpii.....	4	16 12 1.59	- 0.01	27.40	- 2.51	27.44	16 12 26.47
26		* 4° 28'..... S.P.	3	16 54 49.02	- 0.35	27.85	+ 8.55	* 26.70	16 55 25.07
27		5800 B.A.C.		17 4 51.40	+ 0.09	27.85	- 2.81		17 5 16.53
28		5815 B.A.C.		17 7 11.34	+ 0.09	27.85	- 2.79		17 7 36.49
29		5853 B.A.C.		17 12 43.49	+ 0.17	27.85	- 2.63	28.06	17 13 8.88
30		* 0° 42'.....	3	17 20 26.99	+ 3.34	27.85	- 64.40	* 26.52	17 19 53.78
31		α Ophiuchi		17 27 49.61	+ 0.12	27.85	- 2.45	- 27.78	17 28 15.13
32		27 Draconis f....	5	17 32 8.18	+ 0.24	+ 27.85	- 3.43		17 32 32.84
8 Heavy clouds passing. 9 Scarcely visible.					11—12 Cloudy. 23—25 Cloudy.				

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	July 8	87 Herculis.....		17 42 33.39	+ 0.14	+ 27.85	- 2.45		17 42 58.93
2		6064 B.A.C.....		17 47 16.43	+ 0.09	27.85	- 2.87		17 47 41.50
3		5 Sagittarii.....		17 50 57.06	+ 0.09	27.85	- 2.93		17 51 22.07
4		6199 B.A.C.....		18 9 22.36	+ 0.09	27.85	- 3.02	- 27.81	18 9 47.28
5		η Serpentis.....		18 13 26.27	+ 0.12	27.85	- 2.64	27.76	18 13 51.60
6	9	13 Scorpii c ²		16 3 1.27	+ 0.11	27.64	- 2.48		16 3 26.54
7		Antares.....		16 20 9.89	+ 0.11	27.64	- 2.57	27.69	16 20 35.07
8		τ Scorpii.....		16 26 30.23	+ 0.11	27.64	- 2.63		16 26 55.35
9		25 Scorpii.....		16 37 37.64	+ 0.11	27.64	- 2.65		16 38 2.74
10		ε Herculis.....	5	16 54 21.45	+ 0.16	27.64	- 2.39	27.68	16 54 46.86
11		η Ophiuchi.....		17 1 42.26	+ 0.12	27.64	- 2.61	27.56	17 2 7.41
12		36 Ophiuchi A..		17 6 5.20	+ 0.11	27.64	- 2.81		17 6 30.14
13		5831 B.A.C.....		17 8 54.83	+ 0.12	27.64	- 2.77		17 9 19.82
14		β Draconis.....		17 26 45.57	+ 0.18	27.64	- 2.68		17 27 10.71
15	10	β Herculis.....		16 23 36.31	+ 0.15	27.74	- 2.28		16 24 1.92
16		12 Ophiuchi.....		16 28 22.21	+ 0.14	27.74	- 2.35		16 28 47.74
17		5611 B.A.C.....		16 36 30.46	+ 0.25	27.74	- 4.75		16 36 53.70
18		5658 B.A.C.....		16 43 29.01	+ 0.18	27.74	- 2.71		16 43 54.22
19		κ Ophiuchi.....		16 50 25.74	+ 0.15	27.74	- 2.37	27.70	16 50 51.26
20		ε Herculis.....	6	16 54 21.34	+ 0.16	27.74	- 2.38	27.78	16 54 46.86
21	14	5487 B.A.C.....		16 18 3.33	+ 0.18	28.44	- 2.57		16 18 29.38
22		Antares.....		16 20 8.99	+ 0.17	28.44	- 2.54	28.50	16 20 35.06
23		τ Scorpii.....		16 26 29.46	+ 0.18	28.44	- 2.61		16 26 55.47
24		5560 B.A.C.....	5	16 29 58.10	+ 0.20	28.44	- 2.77		16 30 23.97
25		38 Herculis.....		16 33 57.00	+ 0.19	28.44	- 2.31		16 34 23.32
26		25 Scorpii.....		16 37 36.64	+ 0.18	28.45	- 2.63		16 38 2.64
27		ε Scorpii.....		16 40 25.04	+ 0.17	28.45	- 2.83		16 40 50.83
28		* 115° 31'.....		16 45 15.80	+ 0.17	28.45	- 2.68		16 45 41.74
29		γ 1st L.....		16 49 10.10	+ 0.17	28.45	.....		16 50 50.71
30		61 Herculis c....		16 57 53.37	+ 0.20	28.45	- 2.38		16 58 20.14
31		63 Herculis.....		17 4 39.24	+ 0.20	28.45	- 2.36		17 5 5.53
32		θ Ophiuchi.....		17 12 44.41	+ 0.18	+ 28.45	- 2.81	- 28.32	17 13 10.23

10 Very cloudy.
12 Second star.
20 Very cloudy.

28 5673 B.A.C. (7.0) 2' sp. 11^s.
29 Semi-diam. + 71^s.99.

LAMP WEST.											
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.			h.	m.	s.
	1856.			h. m. s.	s.	s.	s.	s.	h.	m.	s.
1	July 14	944 Gr. S.P.	3	17 15 43.10	+ 0.23	+ 28.45	+ 6.53	- * 27.88	17	16	18.31
2		45 Ophiuchi <i>d</i> ..		17 17 44.10	+ 0.17	28.45	- 2.94		17	18	9.78
3		* 0° 42'	2	17 20 21.08	- 0.04	28.45	- 56.78	* 28.19	17	19	52.71
4		ν^1 Draconis		17 28 54.51	+ 0.18	28.45	- 2.69		17	29	20.45
5		ν^2 Draconis		17 28 59.81	+ 0.18	28.45	- 2.69		17	29	25.75
6		29 Draconis	5	17 36 15.43	+ 0.20	28.45	- 3.91		17	36	40.17
7		63 Ophiuchi		17 45 36.71	+ 0.18	28.45	- 2.95		17	46	2.39
8		ν Ophiuchi		17 50 40.20	+ 0.18	28.45	- 2.70	28.34	17	51	6.13
9		35 Draconis	5	17 55 29.82	+ 0.19	28.45	- 4.39		17	55	54.07
10		100 Here. (south)		18 1 34.97	+ 0.19	28.45	- 2.46	28.63	18	2	1.15
11	15	12 Ophiuchi		16 28 21.16	+ 0.19	28.59	- 2.33		16	28	47.61
12		5595 B.A.C.		16 34 32.14	+ 0.17	28.59	- 2.63		16	34	58.27
13		ϵ Scorpii		16 40 24.91	+ 0.18	28.59	- 2.82		16	40	50.86
14		* 115° 31'		16 45 15.60	+ 0.18	28.59	- 2.68		16	45	41.69
15		* 4° 28' S.P.	3	16 54 49.02	+ 0.16	28.59	+ 6.92	* 27.82	16	55	24.69
16		ϵ Urs. Min.	4	17 0 29.87	+ 0.24	28.59	- 6.17		17	0	52.53
17		36 Ophiuchi A ..		17 6 3.74	+ 0.17	28.59	- 2.81		17	6	29.69
18		θ Ophiuchi		17 12 44.29	+ 0.18	28.60	- 2.81	28.44	17	13	10.26
19		45 Ophiuchi <i>d</i> ..		17 17 44.00	+ 0.18	28.60	- 2.94		17	18	9.84
20		* 0° 42'	3	17 20 19.32	+ 0.62	28.60	- 55.42	* 27.93	17	19	53.12
21		β Draconis		17 26 44.47	+ 0.22	28.60	- 2.60		17	27	10.69
22		26 Draconis	5	17 33 4.36	+ 0.22	28.60	- 2.89		17	33	30.29
23		30 Draconis		17 45 11.61	+ 0.21	28.60	- 2.60	28.79	17	45	37.82
24		δ 1st L.		17 50 37.89	+ 0.18	28.60	.....		17	52	20.80
25		ψ^2 Draconis	5	17 57 15.67	+ 0.23	28.60	- 3.58		17	57	40.92
26		λ Sagittarii		18 18 39.33	+ 0.18	28.60	- 3.09	28.65	18	19	5.02
27		1 Aquilæ		18 26 56.21	+ 0.19	28.60	- 2.77	28.61	18	27	22.23
28		* 51° 36'		18 31 30.96	+ 0.20	28.60	- 2.50	28.63	18	31	57.26
29		ϕ Sagittarii		18 36 13.90	+ 0.18	28.60	- 3.18	- 28.50	18	36	39.50
30		6396 B.A.C.	5	18 40 11.67	+ 0.18	28.60	- 3.19		18	40	37.26
31		σ Sagittarii		18 45 54.54	+ 0.17	28.60	- 3.18		18	46	20.13
32	16	5527 B.A.C.		16 23 51.81	+ 0.21	28.65	- 2.23		16	24	18.44
33		12 Ophiuchi		16 28 21.04	+ 0.20	+ 28.65	- 2.32		16	28	47.57
17 First star.					24 Semi-diam. + 74°.13.						

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	July 16	5595 B.A.C.		16 34 32.14	+ 0.18	+ 28.65	- 2.62		16 34 58.35
2		41 Herculis		16 37 32.46	+ 0.21	28.65	- 2.31		16 37 59.01
3		ε Scorpil	5	16 40 24.61	+ 0.19	28.66	- 2.81		16 40 50.65
4		5846 B.A.C.		17 12 25.91	+ 0.19	28.66	- 2.81		17 12 51.95
5		ν ¹ Draconis		17 28 54.11	+ 0.20	28.67	- 2.56		17 29 20.42
6		ν ² Draconis		17 28 59.56	+ 0.20	28.67	- 2.56		17 29 25.87
7		* 5° 16'		17 36 30.46	+ 0.20	28.67	- 8.40	- * 28.97	17 36 50.93
8		1004 Gr. S.P.	3	17 47 49.79	+ 0.24	28.67	+ 10.01	* 28.87	17 48 28.71
9		ψ ² Draconis	5	17 57 15.36	+ 0.22	28.67	- 3.55		17 57 40.70
10		25 Sagittarii		18 25 18.37	+ 0.19	28.67	- 3.08		18 25 44.15
11		* 51° 36'		18 31 30.67	+ 0.21	28.68	- 2.50	28.91	18 31 57.06
12		φ Sagittarii		18 36 13.83	+ 0.19	28.68	- 3.18	28.56	18 36 39.52
13		6400 B.A.C.		18 41 3.76	+ 0.19	28.68	- 3.09		18 41 29.54
14		σ Sagittarii		18 45 54.44	+ 0.18	28.68	- 3.19		18 46 20.11
15		θ Serpente (2d)		18 48 38.83	+ 0.20	28.68	- 2.65		18 49 5.06
16		γ 1st L.		18 54 41.71	+ 0.19	28.68	.....		18 56 25.56
17		ξ Aquilæ		18 58 21.16	+ 0.20	28.68	- 2.55	28.69	18 58 47.49
18		6563 B.A.C.	5	19 3 32.60	+ 0.21	28.68	- 4.12		19 3 57.37
19		24 Aquilæ		19 11 2.59	+ 0.20	28.68	- 2.71		19 11 28.76
20		δ Aquilæ		19 17 48.03	+ 0.20	28.68	- 2.67	28.63	19 18 14.24
21		6683 B.A.C.		19 23 16.41	+ 0.19	28.68	- 3.12		19 23 42.16
22		52 Sagittarii h ² .		19 27 30.83	+ 0.19	28.69	- 3.21	28.61	19 27 56.50
23		42 Aquilæ	5	19 29 42.69	+ 0.19	28.69	- 2.79		19 30 8.78
24		6746 B.A.C.		19 34 54.63	+ 0.19	28.69	- 2.99		19 35 20.52
25		15 Cygni		19 38 38.51	+ 0.20	28.69	- 2.47		19 39 4.93
26		ο Aquilæ		19 43 41.37	+ 0.20	28.69	- 2.59		19 44 7.67
27		59 Sagittarii b...		19 47 40.77	+ 0.19	28.69	- 3.29		19 48 6.36
28		6855 B.A.C.		19 51 14.64	+ 0.21	28.69	- 2.54		19 51 41.00
29		25 Cygni		19 54 11.84	+ 0.20	28.69	- 2.45		19 54 38.28
30		15 Sagittæ		19 57 11.66	+ 0.21	28.69	- 2.53		19 57 38.03
31		6914 B.A.C.		20 0 42.41	+ 0.19	28.69	- 3.10		20 1 8.19
32	17	ν ¹ Draconis		17 28 53.89	+ 0.20	29.08	- 2.64		17 29 20.53
33		5994 B.A.C.		17 35 21.51	+ 0.16	29.09	- 2.42	29.32	17 35 48.34
34		6030 B.A.C.		17 42 5.84	+ 0.14	+ 29.09	- 2.44	- 29.08	17 42 32.63

16 Semi-diam. + 74°.98.

21 Faint.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduc- tion to Mean R.A.	Clock Error by Observa- tion.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	July 17	6065 B.A.C.		17 47 35.89	+ 0.11	+ 29.09	- 2.79		17 48 2.30
2		ξ Herculis		17 51 43.36	+ 0.16	29.09	- 2.44		17 52 10.17
3		ε Sagittarii		18 14 11.17	+ 0.07	29.09	- 3.35		18 14 36.98
4		42 Draconis		18 25 7.83	+ 0.24	29.10	- 3.02		18 25 34.15
5		* 51° 36'		18 31 30.37	+ 0.16	29.10	- 2.50	- 29.26	18 31 57.13
6		6368 B.A.C.	5	18 35 15.88	+ 0.20	29.10	- 2.67		18 35 42.51
7		6400 B.A.C.		18 41 3.76	+ 0.09	29.10	- 3.10		18 41 29.85
8		6447 B.A.C.		18 46 47.19	+ 0.10	29.10	- 2.96		18 47 13.43
9		50 Draconis	5	18 50 34.10	+ 0.31	29.10	- 3.86		18 50 59.65
10		6505 B.A.C.		18 55 29.44	+ 0.15	29.10	- 3.19		18 55 55.50
11		ρ ² Sagittarii		19 13 0.79	+ 0.10	29.11	- 3.04	29.03	19 13 26.96
12		χ ¹ Sagittarii		19 16 4.70	+ 0.09	29.11	- 3.20	28.85	19 16 30.70
13		52 Sagittarii h ² .		19 27 30.49	+ 0.10	29.11	- 3.22	29.05	19 27 56.48
14		* 3° 54' S.P.	3	19 36 55.32	- 0.55	29.11	+ 6.95	* 28.33	19 37 30.83
15		59 Sagittarii b...		19 47 40.53	+ 0.09	29.12	- 3.30		19 48 6.44
16		11 Sagittæ		19 50 46.51	+ 0.14	29.12	- 2.54		19 51 13.23
17		▷ 1st L.	6	19 58 58.75	} + 0.09	29.12	.....		20 0 42.29
18		▷ 2d L.		20 1 27.41					
19		7044 B.A.C.		20 20 20.90	+ 0.10	29.12	- 3.04		20 20 47.08
20		* 1° 34'	3	20 23 28.77	+ 1.86	29.12	- 19.66	* 28.31	20 23 40.09
21		S. 27 18 (2d)		20 35 17.70	+ 0.14	29.13	- 2.53		20 35 44.44
22		γ Delphini (1st)		20 39 31.26	+ 0.14	29.13	- 2.49		20 39 58.04
23		ω Capricorni		20 42 47.54	+ 0.09	29.13	- 3.25		20 43 13.51
24	18	5709 B.A.C.		16 50 42.49	+ 0.11	29.32	- 2.69		16 51 9.23
25		19 Draconis h ¹ ..		16 54 48.04	+ 0.16	29.32	- 2.90		16 55 14.62
26		5797 B.A.C.		17 4 24.06	+ 0.15	29.32	- 2.66		17 4 50.87
27		5853 B.A.C.		17 12 41.90	+ 0.14	29.32	- 2.50	29.55	17 13 8.86
28		5875 B.A.C.		17 16 44.30	+ 0.10	29.32	- 2.90		17 17 10.82
29		* 0° 42'	3	17 20 14.27	+ 1.03	29.32	- 51.24	* 28.39	17 19 53.38
30		ζ Serpentis	6	17 52 25.91	+ 0.11	29.33	- 2.63		17 53 52.72
31		μ ¹ Sagittarii		18 4 42.90	+ 0.11	29.33	- 2.96	29.11	18 5 9.38
32		η Serpentis		18 13 24.93	+ 0.11	29.33	- 2.68	29.15	18 13 51.69
33		6349 B.A.C.		18 30 5.31	+ 0.14	29.34	- 2.50	29.51	18 30 32.29
34		51 Cephei ... S.P.	4	18 30 57.52	- 0.08	+ 29.34	+ 11.37	- * 28.62	18 31 38.15

17 — 0.02 applied for defective illumination.

21 Both stars of equal magnitude.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduc- tion to Mean R.A.	Clock Error by Observa- tion.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	July 18	ν^1 Lyrae.....		18 43 57.39	+ 0.10	+ 29.34	- 2.49		18 44 24.34
2		ϵ Aquilæ		18 52 38.34	+ 0.13	29.34	- 2.56		18 53 5.25
3	22	α Lyrae		18 31 35.60	+ 0.17	30.47	- 2.49	- 30.50	18 32 3.75
4		6368 B.A.C.	5	18 35 14.32	+ 0.18	30.47	- 2.63		18 35 42.34
5		ν^2 Lyrae		18 44 2.11	+ 0.18	30.47	- 2.49		18 44 30.27
6		θ Serpenti (2d).		18 48 37.24	+ 0.17	30.47	- 2.67		18 49 5.21
7		γ Lyrae		18 53 5.36	+ 0.18	30.47	- 2.49		18 53 33.52
8		ζ Aquilæ.....		18 58 19.44	+ 0.17	30.47	- 2.58	30.47	18 58 47.50
9		17 Lyrae		19 1 30.64	+ 0.18	30.47	- 2.50	30.49	19 1 58.79
10		24 Aquilæ		19 11 1.13	+ 0.16	30.47	- 2.75		19 11 29.01
11		δ Aquilæ		19 17 46.34	+ 0.17	30.47	- 2.72	30.40	19 18 14.26
12	25	41 Herculis		16 37 30.21	+ 0.20	31.19	- 2.26		16 37 59.34
13		* 4° 28'..... S.P.	3	16 54 48.85	+ 0.33	31.19	+ 4.29	* 30.45	16 55 24.66
14		ϵ Urs. Min.	4	17 0 25.92	+ 0.14	31.19	- 4.86		17 0 52.39
15		73 Herculis		17 17 36.06	+ 0.16	31.20	- 2.32		17 18 5.10
16		* 0° 42'	3	17 20 2.99	- 0.54	31.20	- 40.63	* 30.63	17 19 53.02
17		ν^2 Draconis		17 29 56.83	+ 0.19	31.20	- 2.49		17 30 25.73
18		26 Draconis.....	5	17 33 1.72	+ 0.19	31.20	- 2.64		17 33 30.47
19		84 Herculis		17 36 58.00	+ 0.20	31.20	- 2.38		17 37 27.02
20		5 Sagittarii		17 50 53.60	+ 0.19	31.21	- 2.97		17 51 22.03
21		ψ^2 Draconis		17 57 12.69	+ 0.19	31.21	- 3.19		17 57 40.90
22		μ^1 Sagittarii		18 4 40.89	+ 0.18	31.21	- 2.96	31.05	18 5 9.32
23		6199 B.A.C.		18 9 18.84	+ 0.19	31.21	- 3.08	31.29	18 9 47.16
24		108 Herculis	5	18 14 55.43	+ 0.20	31.22	- 2.44		18 15 24.41
25		χ Draconis	5	18 23 10.79	+ 0.18	31.22	- 3.29		18 23 38.90
26		6349 B.A.C.		18 30 3.33	+ 0.20	31.22	- 2.46	31.39	18 30 32.29
27		6368 B.A.C.		18 35 13.54	+ 0.19	31.22	- 2.59		18 35 42.36
28		β Lyrae		18 44 16.89	+ 0.20	31.22	- 2.47	31.20	18 44 45.84
29		17 Lyrae		19 1 29.94	+ 0.20	31.23	- 2.50	31.17	19 1 58.87
30	26	* 4° 28'..... S.P.	3	16 54 49.52	- 0.87	31.66	+ 4.02	* 31.25	16 55 24.33
31		η Ophiuchi		17 1 38.17	+ 0.04	31.66	- 2.56	31.68	17 2 7.31
32		* 5° 6'	3	17 6 42.47	+ 0.94	+ 31.66	- 6.45	- * 31.32	17 7 8.62

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.			h.	m.	s.
	1856.			h. m. s.	s.	s.	s.	s.			
1	July 26	5858 B.A.C.		17 13 49.91	+ 0.02	+ 31.66	- 2.78		17	14	18.81
2		5884 B.A.C.		17 17 58.11	+ 0.01	31.66	- 2.91		17	18	26.87
3		26 Draconis.....		17 33 1.21	+ 0.23	31.67	- 2.61		17	33	30.50
4		3 Sagittarii		17 38 1.21	+ 0.02	31.67	- 2.98		17	38	29.92
5		6030 B.A.C.		17 42 3.19	+ 0.11	31.67	- 2.40	- 31.72	17	42	32.57
6		63 Ophiuchi		17 45 33.69	+ 0.02	31.67	- 2.95		17	46	2.43
7		ξ Herculis.....		17 51 41.00	+ 0.12	31.67	- 2.39		17	52	10.40
8		6138 B.A.C.		17 59 49.91	+ 0.02	31.68	- 3.05		18	0	18.56
9		6201 B.A.C. (1st).		18 9 47.23	+ 0.04	31.68	- 2.92		18	10	16.03
10		ε Sagittarii		18 14 8.70	0.00	31.68	- 3.36		18	14	37.02
11		42 Draconis.....	5	18 25 5.14	+ 0.24	31.68	- 2.83		18	25	34.23
12		α Lyrae		18 31 34.40	+ 0.13	31.69	- 2.47	31.72	18	32	3.75
13		110 Hercules		18 38 58.90	+ 0.03	31.69	- 2.52		18	39	28.10
14		β Lyrae		18 44 16.53	+ 0.13	31.69	- 2.47	31.63	18	44	45.88
15		θ Serpentes (2d).		18 48 36.09	+ 0.08	31.69	- 2.68		18	49	5.18
16		ε Aquilæ		18 52 36.06	+ 0.10	31.69	- 2.58		18	53	5.27
17		λ Aquilæ		18 58 7.50	+ 0.06	31.69	- 2.82		18	58	36.43
18		17 Lyrae		19 1 29.53	+ 0.13	31.69	- 2.50	31.65	19	1	58.85
19	29	5720 B.A.C.		16 52 33.81	+ 0.10	32.72	- 2.47		16	53	4.16
20		5752 B.A.C.		16 56 12.61	+ 0.19	32.72	- 2.32		16	56	43.20
21		α Herculis (2d).		17 7 34.90	+ 0.13	32.72	- 2.30		17	8	5.45
22		72 Hercules w...		17 14 45.91	+ 0.15	32.72	- 2.26		17	15	16.52
23		5895 B.A.C.		17 18 57.34	+ 0.15	32.72	- 2.27		17	19	27.94
24		30 Draconis		17 45 7.60	+ 0.18	32.73	- 2.39	32.62	17	45	38.12
25		ξ Draconis		17 50 31.99	+ 0.19	32.74	- 2.47		17	51	2.45
26		35 Draconis	5	17 55 24.42	+ 0.32	32.74	- 3.48		17	55	54.00
27		6138 B.A.C.		17 59 48.81	+ 0.08	32.74	- 3.04		18	0	18.59
28		6201 B.A.C. (2d)..		18 9 47.06	+ 0.09	32.74	- 2.92		18	10	16.97
29		38 Draconis.....		18 17 19.23	+ 0.23	32.74	- 2.86		18	17	49.34
30		25 Sagittarii....		18 25 14.61	+ 0.07	32.75	- 3.11		18	25	44.32
31		α Lyrae		18 31 33.21	+ 0.15	32.75	- 2.45	32.87	18	32	3.66
32		6386 B.A.C.		18 38 50.01	+ 0.08	32.75	- 3.07		18	39	19.77
33		β Lyrae (2d)		18 44 17.50	+ 0.15	32.75	- 2.46		18	44	47.94
34		* 3° 29'	3	19 0 54.03	+ 0.86	+ 32.76	- 9.19	- * 32.16	19	1	18.46

2 Very faint.
8 Scarcely visible.

9 Comp. (8.5) nf. 1^a.
10 Scarcely visible.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduc- tion to Mean R.A.	Clock Error by Observa- tion.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	July 29	1119 Gr. ....S.P.	3	19 4 1.67	- 2.53	+ 32.76	+25.96	* 32.25	19 4 57.86
2		24 Aquilæ.....		19 10 58.93	+ 0.11	32.76	- 2.77		19 11 29.03
3		8 Vulpeculæ.....		19 22 26.16	+ 0.14	32.77	- 2.55	32.76	19 22 56.52
4	30	ζ Draconis		17 7 51.71	+ 0.24	33.27	- 2.51		17 8 22.71
5		5875 B.A.C.		17 16 40.36	+ 0.04	33.27	- 2.84		17 17 10.83
6		* 5° 16'	5	17 36 23.16	+ 0.79	33.28	- 5.79	* 33.07	17 36 51.44
7		30 Draconis.....		17 45 6.79	+ 0.18	33.28	- 2.37	33.41	17 45 37.88
8		ξ Draconis.....		17 50 31.43	+ 0.20	33.28	- 2.45		17 51 2.46
9		35 Draconis.....	5	17 55 23.64	+ 0.37	33.28	- 3.41		17 55 53.88
10		6138 B.A.C.		17 59 48.37	+ 0.04	33.28	- 3.04		18 0 18.65
11		6201 B.A.C. (2d).		18 9 46.27	+ 0.06	33.29	- 2.92		18 10 16.70
12		ε Sagittarii		18 14 7.07	+ 0.03	33.29	- 3.35		18 14 37.04
13		6288 B.A.C.	5	18 20 49.09	+ 0.30	33.29	- 2.99		18 21 19.69
14		1 Aquilæ		18 26 51.73	+ 0.08	33.29	- 2.79	33.22	18 27 22.31
15		6347 B.A.C.		18 29 47.99	+ 0.05	33.30	- 3.05		18 30 18.29
16		β Lyræ (2d)		18 44 16.64	+ 0.14	33.30	- 2.45		18 44 47.63
17		ε Aquilæ	5	18 52 34.35	+ 0.11	33.30	- 2.57		18 53 5.19
18		ρ ² Sagittarii		19 12 56.61	+ 0.06	33.31	- 3.12	33.33	19 13 26.86
19		δ Aquilæ		19 17 43.61	+ 0.09	33.31	- 2.75	33.24	19 18 14.26
20		* 3° 14' .....S.P.	3	19 28 29.12	- 1.02	33.32	+ 6.63	* 33.07	19 29 8.05
21	31	χ Draconis.....	5	18 23 7.69	+ 0.35	33.82	- 3.03		18 23 38.83
22		6336 B.A.C.		18 28 46.21	+ 0.01	33.82	- 3.05		18 29 16.99
23		φ Sagittarii.....		18 36 8.93	0.00	33.82	- 3.23	33.70	18 36 39.52
24		β Lyræ		18 44 14.36	+ 0.13	33.82	- 2.45	33.78	18 44 45.86
25		6447 B.A.C.	5	18 46 42.63	+ 0.02	33.83	- 3.00		18 47 13.48
26		6490 B.A.C.		18 53 8.19	0.00	33.83	- 3.23		18 53 38.79
27		6547 B.A.C.		19 0 23.33	+ 0.12	33.83	- 2.50		19 0 54.78
28		6567 B.A.C.		19 4 43.99	+ 0.12	33.83	- 2.58		19 5 15.36
29		6590 B.A.C.		19 10 16.54	+ 0.02	33.83	- 3.05		19 10 47.34
30		ρ ² Sagittarii		19 12 56.06	+ 0.02	33.84	- 3.12	33.92	19 13 26.80
31		6657 B.A.C.		19 18 56.89	+ 0.10	33.84	- 2.54		19 19 28.29
32		8 Vulpeculæ.....		19 22 25.03	+ 0.10	+ 33.84	- 2.55	- 33.93	19 22 56.42

10 Faint.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Aug. 1	α Herenlis		17 7 32.87	+ 0.04	+ 34.33	- 2.27	- 34.36	17 8 4.97
2		5846 B.A.C.		17 12 20.36	- 0.08	34.33	- 2.73		17 12 51.88
3		5875 B.A.C.		17 16 39.50	- 0.08	34.34	- 2.83		17 17 10.93
4		* 5° 16'	4	17 36 21.66	+ 1.44	34.34	- 5.38	* 33.51	17 36 52.06
5		ω Draconis	5	17 37 16.03	+ 0.34	34.34	- 2.63		17 37 48.08
6		6064 B.A.C.		17 47 10.00	- 0.06	34.35	- 2.87		17 47 41.42
7		ζ Serpentis		17 52 20.94	- 0.02	34.35	- 2.60		17 52 52.67
8		6132 B.A.C.		17 59 28.59	- 0.08	34.35	- 3.01	34.44	17 59 59.85
9		6201 B.A.C. (1st)		18 9 44.61	- 0.05	34.36	- 2.91		18 10 16.01
10		108 Herculis		18 14 52.44	+ 0.09	34.36	- 2.40		18 15 24.49
11		25 Sagittarii.....		18 25 13.03	- 0.07	34.36	- 3.10		18 25 44.22
12		6338 B.A.C.		18 28 50.94	- 0.08	34.36	- 3.15		18 29 22.07
13		6369 B.A.C.	5	18 35 27.33	- 0.08	34.36	- 3.17		18 35 58.44
14		6400 B.A.C.		18 40 58.63	- 0.06	34.37	- 3.13		18 41 29.81
15		β Lyrae (2d)		18 44 15.67	+ 0.10	34.37	- 2.44		18 44 47.70
16		γ Lyrae		18 53 1.59	+ 0.10	34.37	- 2.46		18 53 33.60
17		λ Aquilae.....		18 58 5.00	- 0.02	34.37	- 2.83		18 58 36.52
18		1119 Gr. ....S.P.	3	19 4 8.01	- 7.76	34.37	+ 23.52	* 33.58	19 4 58.14
19		6590 B.A.C.		19 10 16.13	- 0.05	34.38	- 3.05		19 10 47.41
20		τ Draconis	4	19 17 46.17	+ 0.45	34.38	- 3.14		19 18 17.86
21		6683 B.A.C.		19 23 11.14	- 0.06	34.38	- 3.23		19 23 42.23
22		51 Sagittarii h^1 .		19 26 45.87	- 0.08	34.38	- 3.33	34.35	19 27 16.84
23		θ Cygni		19 32 2.64	+ 0.17	34.38	- 2.52	34.43	19 32 34.67
24		6764 B.A.C.	6	19 37 30.04	+ 0.17	34.39	- 2.53	34.27	19 38 2.07
25		α Aquilae		19 43 13.77	+ 0.02	34.39	- 2.73	34.35	19 43 45.45
26	2	5884 B.A.C.		17 17 55.09	- 0.02	34.81	- 2.86		17 18 27.02
27		29 Draconis.....	5	17 36 8.03	+ 0.37	34.82	- 2.86		17 36 40.36
28		* 5° 16'	4	17 36 21.26	+ 0.99	34.82	- 5.17	* 34.15	17 36 51.90
29		6064 B.A.C.		17 47 9.43	0.00	34.82	- 2.87		17 47 41.38
30		ξ Draconis		17 50 29.71	+ 0.18	34.82	- 2.38		17 51 2.33
31		6132 B.A.C.		17 59 28.11	- 0.01	34.82	- 3.01	- 34.85	17 59 59.91
32		6201 B.A.C. (2d).		18 9 45.14	0.00	34.83	- 2.91		18 10 17.06
33		38 Draconis.....		18 17 16.96	+ 0.28	34.83	- 2.71		18 17 49.36
34		χ Draconis.....		18 22 6.91	+ 0.34	+ 34.83	- 2.93		18 22 39.15

LAMP WEST.

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					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Aug. 2	6723 B.A.C.		19 30 3.56	+ 0.16	+ 34.86	- 2.52	- 34.91	19 30 36.06
2		γ Aquilæ		19 38 52.59	+ 0.06	34.86	- 2.69	34.86	19 39 24.82
3		α Aquilæ		19 43 13.29	+ 0.06	34.86	- 2.73	34.79	19 43 45.48
4		* 5° 34' S.P.	5	19 50 19.59	- 0.82	34.86	+ 2.92	* 34.18	19 50 56.55
5	4	5895 B.A.C.		17 18 54.21	+ 0.05	35.93	- 2.18		17 19 28.01
6		* 5° 16'	4	17 36 19.51	+ 1.73	35.94	- 4.75	* 34.74	17 36 52.43
7		84 Herculis		17 36 53.34	+ 0.01	35.94	- 2.29		17 37 27.00
8		6065 B.A.C.		17 47 29.00	- 0.13	35.94	- 2.74		17 48 2.07
9		5 Sagittarii		17 50 49.11	- 0.16	35.94	- 2.92		17 51 21.97
10		70 Ophiuchi (2d)		17 57 37.83	- 0.07	35.94	- 2.53	35.98	17 58 11.17
11		6201 B.A.C. (1st)		18 9 42.96	- 0.14	35.95	- 2.90		18 10 15.87
12		108 Herculis ...		18 14 50.81	+ 0.03	35.95	- 2.37		18 15 24.42
13		6288 B.A.C.	5	18 20 46.35	+ 0.44	35.95	- 2.76		18 21 19.98
14		6336 B.A.C.		18 28 44.21	- 0.15	35.95	- 3.04		18 29 16.97
15		ϵ^1 Lyrae (1st) ...		18 39 0.50	+ 0.08	35.96	- 2.40		18 39 34.14
16		ν^1 Lyrae		18 43 50.84	+ 0.04	35.96	- 2.43		18 44 24.41
17		6447 B.A.C.		18 46 40.41	- 0.12	35.96	- 3.00		18 47 13.25
18		6505 B.A.C.		18 55 22.57	+ 0.01	35.96	- 3.25		18 55 55.29
19		6547 B.A.C.		19 0 21.23	+ 0.02	35.96	- 2.48		19 0 54.73
20		1119 Gr. S.P.	3	19 4 11.34	- 9.84	35.97	+ 20.93	* 34.92	19 4 58.40
21		6590 B.A.C.		19 10 14.51	- 0.13	35.97	- 3.06		19 10 47.29
22		7 Draconis	4	19 17 44.72	+ 0.48	35.97	- 3.03		19 18 18.14
23		6683 B.A.C.		19 23 9.51	- 0.15	35.97	- 3.24		19 23 42.09
24		51 Sagittarii h^1 .		19 26 44.39	- 0.16	35.97	- 3.33	35.91	19 27 16.87
25		6723 B.A.C.		19 30 2.60	+ 0.15	35.97	- 2.50	35.86	19 30 36.22
26		6746 B.A.C.		19 34 47.81	- 0.13	35.98	- 3.12		19 35 20.54
27		γ Aquilæ		19 38 51.56	- 0.05	35.98	- 2.69	36.00	19 39 24.80
28		6806 B.A.C.		19 43 48.11	+ 0.06	35.98	- 2.50	36.10	19 44 21.65
29		11 Sagittæ		19 50 39.87	- 0.03	35.98	- 2.64		19 51 13.18
30	5	5896 B.A.C.	5	17 19 12.13	+ 0.07	36.36	- 2.75		17 19 45.81
31		* 5° 16'	5	17 36 19.20	+ 0.60	36.37	- 4.54	- * 35.97	17 36 51.63
32		ξ Draconis		17 50 28.39	+ 0.19	36.37	- 2.30		17 51 2.65
33		35 Draconis	5	17 55 20.36	+ 0.32	+ 36.37	- 2.96		17 55 54.09

LAMP WEST.

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					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Aug. 5	6199 B.A.C.		18 9 13.77	+ 0.07	+ 36.37	- 3.05	- 36.45	18 9 47.16
2		42 Draconis.....		18 25 0.24	+ 0.22	36.38	- 2.53		18 25 34.31
3		6347 B.A.C.		18 29 45.01	+ 0.08	36.38	- 3.04		18 30 18.43
4		6369 B.A.C.		18 35 25.37	+ 0.07	36.38	- 3.16		18 35 58.66
5		ϵ^2 Lyræ (2d)		18 39 2.56	+ 0.16	36.38	- 2.39		18 39 36.71
6		ν^2 Lyræ		18 43 56.43	+ 0.15	36.38	- 2.42		18 44 30.54
7		50 Draconis.....	6	18 50 26.24	+ 0.30	36.38	- 3.07		18 50 59.85
8		λ Aquilæ.....		18 58 2.86	+ 0.10	36.39	- 2.82		18 58 36.53
9		1119 Gr. ....S.P.	3	19 4 4.01	- 2.55	36.39	+ 20.00	* 35.89	19 4 57.85
10		δ Draconis		19 11 56.90	+ 0.24	36.39	- 2.71		19 12 30.82
11		ι^2 Cygni		19 25 30.40	+ 0.18	36.39	- 2.49	36.35	19 26 4.48
12		6723 B.A.C.		19 30 2.00	+ 0.18	36.40	- 2.49	36.42	19 30 36.09
13		6750 B.A.C.		19 35 20.63	+ 0.12	36.40	- 2.61		19 35 54.54
14		γ Aquilæ		19 38 51.04	+ 0.12	36.40	- 2.69	36.35	19 39 24.87
15		\circ Aquilæ		19 43 34.09	+ 0.12	36.40	- 2.70		19 44 7.91
16		58 Aquilæ.....		19 46 48.63	+ 0.11	36.40	- 2.85		19 47 22.29
17		11 Sagittæ		19 50 39.39	+ 0.13	36.40	- 2.64		19 51 13.28
18		6878 B.A.C.		19 54 38.97	+ 0.08	36.40	- 3.34		19 55 12.11
19		* $5^{\circ} 16'$	3	17 36 17.46	+ 0.81	36.72	- 4.32	* 37.28	17 36 50.67
20		ψ^1 Draconis(1st)	4	17 43 56.08	+ 0.31	36.72	- 2.53		17 44 30.58
21		ψ^1 Draconis (2d)	3	17 43 57.57	+ 0.31	36.72	- 2.53		17 44 32.07
22		ξ Herculis		17 51 35.63	+ 0.11	36.72	- 2.29		17 52 10.17
23		70 Ophiuchi(2d)		17 57 36.99	+ 0.07	36.72	- 2.52	36.67	17 58 11.26
24		6199 B.A.C.		18 9 13.50	+ 0.02	36.72	- 3.04	36.76	18 9 47.20
25		38 Draconis.....		18 17 14.69	+ 0.25	36.72	- 2.55		18 17 49.11
26		6338 B.A.C.		18 28 48.39	+ 0.02	36.72	- 3.14		18 29 21.99
27		6369 B.A.C.		18 35 24.81	+ 0.02	36.72	- 3.16		18 35 58.39
28		ϵ^1 Lyræ (2d)		18 38 59.84	+ 0.12	36.73	- 2.37		18 39 34.32
29		ν^1 Lyræ		18 43 50.03	+ 0.11	36.73	- 2.41		18 44 24.46
30		50 Draconis.....	6	18 50 25.63	+ 0.33	36.73	- 3.02		18 50 59.67
31		α^2 Capricorni ...		20 9 30.16	+ 0.04	36.74	- 3.12	36.60	20 10 3.82
32		1418 Gr.S.P.	5	20 12 19.27	- 0.79	36.74	+ 3.57	* 37.28	20 12 58.79
33		γ Cygni		20 16 29.26	+ 0.12	+ 36.74	- 2.52	- 36.79	20 17 3.60

LAMP WEST.

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					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Aug. 7	ϵ^1 Lyrae (1st) ...		18 39 1.71	+ 0.15	+ 36.84	- 2.36		18 39 36.34
2		ν^2 Lyrae		18 43 55.73	+ 0.15	36.84	- 2.40		18 44 30.32
3		6490 B.A.C.		18 53 4.94	+ 0.06	36.85	- 3.22		18 53 38.63
4		λ Aquilæ		18 58 2.13	+ 0.09	36.85	- 2.82		18 58 36.25
5		6567 B.A.C.		19 4 40.80	+ 0.14	36.85	- 2.45		19 5 15.34
6		6590 B.A.C.		19 10 13.50	+ 0.08	36.85	- 3.06		10 10 47.37
7		χ^1 Sagittarii		19 15 57.04	+ 0.06	36.85	- 3.30	- 36.64	19 16 30.65
8		6657 B.A.C.		19 18 53.77	+ 0.14	36.85	- 2.52		19 19 28.24
9		51 Sagittarii h^1		19 26 43.29	+ 0.06	36.85	- 3.34	36.80	19 27 16.86
10		6764 B.A.C.		19 37 27.17	+ 0.17	36.85	- 2.48	37.09	19 38 1.71
11		α Aquilæ		19 43 11.16	+ 0.11	36.85	- 2.74	36.88	19 43 45.38
12		ω Sagittarii		19 46 27.36	+ 0.07	36.85	- 3.44		19 47 0.84
13		11 Sagittæ		19 50 38.74	+ 0.12	36.85	- 2.65		19 51 13.06
14		15 Sagittæ		19 57 3.63	+ 0.12	36.85	- 2.65		19 57 37.95
15		6907 B.A.C.		19 59 47.81	+ 0.08	36.85	- 3.16		20 0 21.58
16		28 Cygni b^2		20 3 30.10	+ 0.16	36.85	- 2.52		20 4 4.59
17	9	* 3° 14' .....S.P.	5	19 28 27.04	- 0.23	37.44	+ 4.25	* 36.74	19 29 8.50
18		* 4° 13'	3	19 43 18.49	+ 0.51	37.44	- 6.31	* 36.75	19 43 50.13
19		* 4° 13'	3	19 45 3.99	+ 0.51	37.44	- 6.33	* 36.87	19 45 35.61
20		α^2 Capricorni		20 9 29.24	+ 0.16	37.45	- 3.13	37.41	20 10 3.72
21		γ Cygni		20 16 28.39	+ 0.19	37.45	- 2.52	37.59	20 17 3.51
22		ρ Capricorni		20 20 4.41	+ 0.15	37.45	- 3.26	37.32	20 20 38.75
23		7070 B.A.C.		20 23 15.43	+ 0.14	37.45	- 3.39		20 23 49.63
24		ν Capricorni		20 31 16.64	+ 0.15	37.45	- 3.28	37.49	20 31 50.96
25	11	δ 1st L.	4	17 21 27.48	+ 0.10	38.28	.....		17 23 18.83
26		ζ Lyrae (1st)		18 39 12.60	+ 0.16	38.30	- 2.32		18 39 48.74
27		β Lyrae (1st)		18 44 9.61	+ 0.17	38.30	- 2.35	38.39	18 44 45.73
28		θ Serpentis (1st)		18 48 27.90	+ 0.13	38.30	- 2.64	38.21	18 49 3.69
29		γ Lyrae		18 52 57.33	+ 0.17	38.30	- 2.39		18 53 33.41
30		6547 B.A.C.		19 0 19.00	+ 0.17	38.30	- 2.43		19 0 55.04
31		6723 B.A.C.	3	19 30 0.05	+ 0.19	38.31	- 2.42	38.29	19 30 36.13
32	12	6764 B.A.C.		19 37 25.70	+ 0.19	+ 38.54	- 2.42	- 38.48	19 38 2.01

August 7. Hazy, with clouds about the north.

9. High wind and passing clouds.

3 Very faint.

25 Semi-diam. + 72".97; cloudy.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Aug. 12	* 4° 13'	3	19 43 15.99	+ 0.63	+ 38.54	- 5.78	- * 38.60	19 43 49.38
2		* 4° 13'	3	19 45 1.66	+ 0.63	38.54	- 5.81	* 38.56	19 45 35.02
3		1418 Gr. S.P.	3	20 12 18.35	- 0.28	38.55	+ 2.71	* 38.55	20 12 59.33
4		ρ Capricorni		20 20 3.26	+ 0.12	38.55	- 3.28	38.52	20 20 38.65
5		7079 B.A.C. (2d).		20 23 44.51	+ 0.13	38.55	- 2.76		20 24 20.43
6		ν Capricorni		20 31 15.54	+ 0.12	38.56	- 3.30	38.64	20 31 50.92
7		13 ψ^1 Draconis	5	17 43 53.17	+ 0.36	38.97	- 2.10		17 44 30.40
8		ζ Serpentis		17 52 16.09	+ 0.10	38.97	- 2.51		17 52 52.65
9		70 Ophiuchi (1st)		17 57 34.10	+ 0.11	38.97	- 2.46	38.97	17 58 10.72
10		μ^1 Sagittarii		18 4 33.07	+ 0.07	38.98	- 2.86	38.88	18 5 9.26
11		36 Draconis		18 12 26.94	+ 0.27	38.98	- 2.18		18 13 4.01
12		* 2° 36'	3	18 23 9.59	+ 1.74	38.98	- 5.47	* 38.47	18 23 44.84
13		ζ Lyrae (2d)		18 39 13.81	+ 0.16	38.99	- 2.30		18 39 50.66
14		σ Sagittarii		18 45 44.31	+ 0.05	38.99	- 3.21		18 46 20.14
15		6505 B.A.C.		18 55 19.44	+ 0.15	38.99	- 3.22		18 55 55.36
16		1119 Gr. S.P.	3	19 4 11.10	- 4.20	38.99	+ 12.14	* 38.31	19 4 58.03
17		D 1st L.		19 28 0.20	+ 0.05	39.00	.....		19 29 54.17
18		6750 B.A.C.		19 35 17.90	+ 0.13	39.00	- 2.59		19 35 54.44
19		6773 B.A.C.		19 38 54.91	+ 0.07	39.00	- 3.27		19 39 30.71
20		β Aquilæ		19 47 38.09	+ 0.12	39.00	- 2.76	38.94	19 48 14.45
21		62 Sagittarii e ..		19 53 12.24	+ 0.05	39.01	- 3.51	39.17	19 53 47.79
22		27 Cygni b^1		20 0 24.20	+ 0.17	39.01	- 2.50		20 1 0.88
23		14 36 Draconis	5	18 12 26.50	+ 0.14	39.28	- 2.14		18 13 3.78
24		* 2° 36'	3	18 23 9.93	+ 0.32	39.28	- 5.03	* 39.11	18 23 44.50
25		6349 B.A.C.		18 29 55.11	+ 0.12	39.28	- 2.24	39.47	18 30 32.27
26		6386 B.A.C.		18 38 43.29	+ 0.09	39.29	- 3.01		18 39 19.66
27		β Lyrae		18 44 8.73	+ 0.12	39.29	- 2.32	39.29	18 44 45.82
28		θ Serpentis (1st)		18 48 26.96	+ 0.11	39.29	- 2.62	- 39.15	18 49 3.74
29		6490 B.A.C.		18 53 2.70	+ 0.10	39.29	- 3.20		18 53 38.89
30		R Aquilæ		18 58 49.46	+ 0.10	39.29	- 2.61		18 59 26.24
31		53 Sagittarii	6	19 30 34.11	+ 0.09	39.30	- 3.31		19 31 10.19
32		6746 B.A.C.		19 34 44.44	+ 0.10	39.30	- 3.12		19 35 20.72
33		δ Sagittæ		19 40 21.30	+ 0.12	+ 39.30	- 2.60		19 40 58.12

7 First star.

16 Cloudy.

17 Semi-diam. + 74°.92.

21 Scarcely visible.

23 Cloudy.

26 Cloudy.

30 Decidedly scarlet.

31 Cloudy.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Aug. 14	η Cygni		19 50 17.43	+ 0.13	+ 39.30	- 2.48		19 50 54.38
2		62 Sagittarii c...		19 53 12.06	+ 0.09	39.30	- 3.51	- 39.31	19 53 47.94
3		6923 B.A.C.		20 1 28.49	+ 0.09	39.30	- 3.28		20 2 4.60
4		1418 Gr. ....S.P.	3	20 12 17.85	+ 0.01	39.31	+ 2.39	* 39.08	20 12 59.56
5		7079 B.A.C. (1st)		20 23 42.91	+ 0.10	39.31	- 2.76		20 24 19.56
6		γ 1st L.		20 31 38.49	+ 0.09	39.31	.....		20 33 31.80
7		11 Aquarii		20 52 22.34	+ 0.11	39.31	- 3.03		20 52 58.73
8		7325 B.A.C.		20 57 53.23	+ 0.09	39.32	- 3.39		20 58 29.25
9		27 Capricorni ...		21 0 42.83	+ 0.09	[39.32	- 3.40		21 1 18.84
10		7387 B.A.C.	5	21 8 30.46	+ 0.14	39.32	- 2.63		21 9 7.29
11		ϵ Capricorni		21 13 37.43	+ 0.10	39.32	- 3.30	39.22	21 14 13.55
12		ζ Capricorni		21 17 50.47	+ 0.09	39.32	- 3.45	39.36	21 18 26.43
13	15	7325 B.A.C.		20 57 53.07	+ 0.08	39.62	- 3.39		20 58 29.38
14		27 Capricorni ...		21 0 42.36	+ 0.08	39.62	- 3.40		21 1 18.66
15		ϵ Capricorni		21 13 36.90	+ 0.09	39.63	- 3.31	39.77	21 14 13.31
16		ζ Capricorni		21 17 50.06	+ 0.08	39.63	- 3.46	39.79	21 18 26.31
17		7485 B.A.C.		21 25 6.16	+ 0.09	39.63	- 3.29		21 25 42.59
18		ξ Aquarii		21 29 28.50	+ 0.09	39.63	- 3.11	39.46	21 30 5.11
19		γ 1st L.		21 33 0.37	+ 0.08	39.63	.....		21 34 52.21
20		γ 2d L.		21 35 24.63					
21		δ Capricorni		21 38 29.13	+ 0.09	39.63	- 3.28		21 39 5.57
22		7608 B.A.C.		21 43 5.36	+ 0.08	39.63	- 3.34	39.57	21 43 41.73
23		7628 B.A.C.		21 46 2.30	+ 0.10	39.63	- 3.03		21 46 39.00
24		7650 B.A.C.		21 50 3.57	+ 0.09	39.63	- 3.05		21 50 40.24
25		Weisse xxi. 1240		21 52 42.81	+ 0.09	39.63	- 3.20		21 53 19.33
26		ϵ Aquarii		21 58 2.94	+ 0.09	39.64	- 3.21	39.54	21 58 39.46
27		7715 B.A.C.		22 1 11.13	+ 0.08	39.64	- 3.61		22 1 47.24
28		7744 B.A.C.		22 4 37.27	+ 0.10	39.64	- 3.02		22 5 13.99
29	22	1119 Gr. ....S.P.	3	19 4 19.01	- 2.82	39.95	+ 2.09	* 39.07	19 4 58.23
30		δ Draconis		19 11 52.74	+ 0.22	39.95	- 2.12		19 12 30.79
31		ϵ^2 Cygni	4	19 25 26.48	+ 0.16	39.95	- 2.22	40.02	19 26 4.37
32		σ Draconis	5	19 32 0.09	+ 0.23	39.95	- 2.25		19 32 38.02
33		16 Cygni c		19 37 21.26	+ 0.16	+ 39.95	- 2.27	40.11	19 37 59.10

August 22. An uncertain cloudy night.

6 Semi-diam. + 73°.91.

20 + 0°.10 applied for defective illumination.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Aug. 22	* 4° 13'.....	3	19 43 13.49	+ 0.78	+ 39.95	- 3.76	- * 38.93	19 43 50.46
2		6867 B.A.C.	5	19 52 32.80	+ 0.18	39.95	- 2.31		19 53 10.62
3		15 Sagittæ.....		19 57 0.76	+ 0.10	39.95	- 2.61		19 57 38.20
4		α^2 Capricorni....		20 9 26.89	+ 0.07	39.95	- 3.13	39.85	20 10 3.78
5		γ Cygni.....		20 16 26.17	+ 0.13	39.95	- 2.45	39.80	20 17 3.80
6	29	59 Draconis.....	3	19 13 45.25	+ 0.27	40.85	- 1.67		19 14 24.70
7		* 3° 14'..... S.P.	3	19 28 29.34	- 0.84	40.85	- 2.04	* 41.34	19 29 7.31
8		2521 B.A.C. ... S.P.	3	19 31 36.67	- 0.25	40.85	- 1.76		19 32 15.51
9		6867 B.A.C.	5	19 52 31.56	+ 0.13	40.85	- 2.14		19 53 10.40
10		66 Draconis.....		20 2 36.36	+ 0.15	40.86	- 2.18		20 3 15.19
11		29 Cygni b^3		20 8 29.90	+ 0.09	40.86	- 2.38		20 9 8.47
12		7006 B.A.C.		20 13 46.40	+ 0.08	40.86	- 2.40		20 14 24.94
13		* 4° 40'.....	3	20 20 48.25	+ 0.67	40.86	- 3.28	* 41.30	20 21 26.50
14		26 Vulpeculæ ...		20 29 19.63	+ 0.07	40.86	- 2.56		20 29 58.00
15		α Cygni.....		20 35 52.84	+ 0.10	40.86	- 2.41	40.87	20 36 31.39
16		ϵ Cygni		20 39 44.84	+ 0.08	40.86	- 2.51	40.73	20 40 23.27
17		7320 B.A.C.		20 56 51.24	+ 0.08	40.86	- 2.52	40.92	20 57 29.66
18		61 Cygni (1st)...		20 59 48.61	+ 0.08	40.86	- 2.74		21 0 26.81
19		41030 Lalande ..		21 1 49.77	+ 0.08	40.86	- 2.53	40.91	21 2 28.18
20		7468 B.A.C.		21 21 21.63	+ 0.12	40.86	- 2.54		21 22 0.07
21		β Cephei.....	5	21 26 8.95	+ 0.19	40.86	- 2.75		21 26 47.25
22	Sept. 2	R Aquilæ.....		18 58 47.00	+ 0.09	41.42	- 2.43		18 59 26.08
23		1119 Gr..... S.P.	3	19 4 33.01	- 4.65	41.42	- 11.75	* 40.74	19 4 58.03
24		δ Draconis		19 11 50.54	+ 0.32	41.43	- 1.62		19 12 30.67
25		42 Aquilæ		19 29 30.13	+ 0.10	41.43	- 2.76		19 30 8.90
26		* 4° 13'.....	3	19 44 54.43	+ 1.23	41.43	- 1.19	- * 40.57	19 45 35.90
27		27 Cygni b^1		20 0 21.57	+ 0.18	41.43	- 2.31		20 1 0.87
28		68 Draconis.....	5	20 8 33.48	+ 0.30	41.43	- 2.10		20 9 13.11
29		7009 B.A.C.		20 14 44.37	+ 0.09	41.43	- 3.14		20 15 22.75
30		72 Draconis.....		20 20 24.34	+ 0.30	41.43	- 2.17		20 21 3.90
31		30 Vulpeculæ....		20 37 59.54	+ 0.16	41.44	- 2.56		20 38 38.58
32		ω Capricorni		20 42 35.43	+ 0.05	41.44	- 3.58		20 43 13.34
33		7262 B.A.C.		20 48 32.01	+ 0.24	+ 41.44	- 2.36		20 49 11.33

5 Scarcely visible.
7—8 Very cloudy.

14 Cloudy.
22 * (9.3) 8' nf. 49°.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Sept. 2	7320 B.A.C.		20 56 50.56	+ 0.18	+ 41.44	- 2.49	- 41.47	20 57 29.69
2		61 Cygni (1st) ..		20 59 47.77	+ 0.18	41.44	- 2.72		21 0 26.67
3		41030 Lalande ..		21 1 48.93	+ 0.18	41.44	- 2.51	41.63	21 2 28.04
4		ζ Cygni		21 6 9.59	+ 0.17	41.44	- 2.59	41.36	21 6 48.61
5		19 Aquarii		21 16 50.20	+ 0.10	41.44	- 3.20		21 17 28.54
6		36 Capricorni <i>b</i> .		21 19 52.41	+ 0.07	41.44	- 3.50	41.28	21 20 30.42
7	3	110 Herculis		18 38 48.19	+ 0.01	41.62	- 2.15		18 39 27.67
8		β Lyrae (1st)		18 44 5.96	+ 0.13	41.62	- 2.01	41.74	18 44 45.70
9		θ Serpentis (1st) 5		18 48 24.25	+ 0.06	41.62	- 2.42	41.71	18 49 3.51
10		R Aquilæ		18 58 46.87	+ 0.03	41.62	- 2.42		18 59 26.10
11		* 3° 29'	3	19 0 33.70	+ 1.76	41.62	+ 1.40	* 41.00	19 1 18.48
12		59 Draconis	3	19 13 43.25	+ 0.50	41.62	- 1.26		19 14 24.11
13		* 3° 14'	3	19 28 31.84	- 1.14	41.62	- 3.89	* 40.99	19 29 8.43
14		η Cygni		19 50 14.81	+ 0.13	41.63	- 2.27		19 50 54.30
15		6880 B.A.C.		19 54 45.34	+ 0.02	41.63	- 3.08		19 55 23.91
16		* 50° 18'		20 5 35.85	+ 0.14	41.63	- 2.27		20 6 15.35
17		7006 B.A.C.		20 13 45.61	+ 0.13	41.63	- 2.34		20 14 25.03
18		7044 B.A.C.		20 20 8.54	+ 0.01	41.63	- 3.24		20 20 46.94
19		7077 B.A.C.		20 23 39.43	0.00	41.63	- 3.45		20 24 17.61
20		S Capricorni		20 32 51.41	+ 0.01	41.63	- 3.32		20 33 29.73
21		51 Cygni		20 36 6.64	+ 0.19	41.63	- 2.31	41.74	20 36 46.15
22		η Cephei		20 41 41.74	+ 0.26	41.63	- 2.27		20 42 21.36
23		1 Equulei (2d) ..		20 51 14.67	+ 0.06	41.64	- 2.87		20 51 53.50
24		61 Cygni (1st) ...		20 59 47.73	+ 0.13	41.64	- 2.71		21 0 26.79
25		41030 Lalande ..		21 1 48.99	+ 0.13	41.64	- 2.50	41.61	21 2 28.26
26		19 Aquarii		21 16 50.16	+ 0.03	41.64	- 3.19		21 17 28.64
27		36 Capricorni <i>b</i> .		21 19 52.39	0.00	41.64	- 3.50	41.37	21 20 30.53
28		* 3° 30'	3	21 46 59.80	- 1.60	41.64	+ 2.85		21 47 42.69
29		* 2° 1'	2	21 47 24.70	- 2.85	41.64	+ 6.24	* 40.83	21 48 9.73
30	4	6480 B.A.C.		18 50 57.71	+ 0.07	41.83	- 2.03	- 41.96	18 51 37.58
31		2317 B.A.C. ... S.P.	3	18 57 13.19	- 0.52	41.83	- 3.34		18 57 51.16
32		18 Lyncis ... S.P.		19 2 39.49	- 0.10	41.84	- 2.00		19 3 19.23
33		2377 B.A.C. ... S.P.	3	19 7 35.99	- 0.49	+ 41.84	- 3.08		19 8 14.26

16 * (9.0) 3' np. 6°.

32 The minutes were noted 1 instead of 2.

LAMP WEST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Sept. 4	* 5° 34' S.P.	3	19 50 18.88	- 0.83	+ 41.84	- 2.54	- * 40.36	19 50 57.35
2		6907 B.A.C.		19 59 42.74	- 0.02	41.84	- 3.08		20 0 21.48
3		* 50° 18' S		20 5 35.39	+ 0.09	41.84	- 2.25		20 6 15.07
4		S Capricorni.....		20 32 51.30	- 0.03	41.85	- 3.32		20 33 29.80
5		24 Cephei (Hev.)	2	20 33 13.70	+ 3.66	41.85	- 4.40	* 40.24	20 33 54.81
6		7262 B.A.C.		20 48 31.77	+ 0.14	41.85	- 2.32		20 49 11.44
7		7300 B.A.C.		20 54 12.06	- 0.04	41.85	- 3.54		20 54 50.33
8		61 Cygni (1st) ..		20 59 47.46	+ 0.08	41.85	- 2.70		21 0 26.69
9		ζ Cygni.....		21 6 9.27	+ 0.07	41.85	- 2.58	41.77	21 6 48.61
10		υ Cygni		21 11 20.39	+ 0.09	41.85	- 2.55	41.95	21 11 59.78
11		1 Pegasi (1st) ...		21 14 44.61	+ 0.05	41.85	- 2.71		21 15 23.80
12		7468 B.A.C.		21 21 20.56	+ 0.13	41.85	- 2.48		21 22 0.06
13		7494 B.A.C.		21 26 13.60	+ 0.16	41.85	- 2.51		21 26 53.10
14		42 Capricorni ...		21 33 4.39	- 0.02	41.86	- 3.32		21 33 42.91
15		ε Pegasi		21 36 27.83	+ 0.03	41.86	- 2.89	41.83	21 37 6.83
16		7608 B.A.C.		21 43 3.43	- 0.03	41.86	- 3.45	41.72	21 43 41.81
17		5 * 3° 29' S	3	19 0 31.20	+ 2.83	42.01	+ 2.13	* 41.70	19 1 18.17
18		47 Camelop. S.P.		19 8 59.36	- 0.29	42.01	- 2.02		19 9 39.06
19		7 Draconis	5	19 17 36.39	+ 0.56	42.01	- 1.31		19 18 17.65
20		* 3° 14' S.P.	3	19 28 33.79	- 3.05	42.01	- 4.67	* 41.73	19 29 8.08
21		6785 B.A.C.		19 40 26.60	- 0.06	42.01	- 2.90		19 41 5.65
22		25 Cygni		19 53 58.53	+ 0.11	42.01	- 2.23		19 54 38.42
23		6914 B.A.C.		20 0 29.44	- 0.09	42.01	- 3.22		20 1 8.14
24		* 50° 18' S		20 5 35.20	+ 0.13	42.01	- 2.24		20 6 15.10
25		α² Capricorni ...		20 9 24.83	- 0.06	42.01	- 3.06	41.97	20 10 3.72
26		ο Urs. Maj. S.P.		20 17 35.76	- 0.31	42.01	- 1.59		20 18 15.87
27		7262 B.A.C.		20 48 31.37	+ 0.23	42.02	- 2.31		20 49 11.31
28		7300 B.A.C.		20 54 11.70	- 0.11	42.02	- 3.54		20 54 50.07
29		ζ Cygni.....		21 6 8.93	+ 0.09	42.02	- 2.57	42.08	21 6 48.47
30		υ Cygni		21 11 20.23	+ 0.11	42.02	- 2.55	42.09	21 11 59.81
31		1 Pegasi (1st) ...		21 14 44.30	+ 0.04	42.02	- 2.71		21 15 23.65
32		35 Vulpeculæ ...		21 20 39.80	+ 0.07	42.02	- 2.64		21 21 19.25
33		7485 B.A.C.		21 25 4.07	- 0.08	42.02	- 3.36	- 41.93	21 25 42.65
34		3 Pegasi (2d) ...		21 29 53.80	0.00	+ 42.02	- 2.92		21 30 32.90
24 Scarcely visible.					34 Companion (8.0) np.				

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Sept. 5	7553 B.A.C.		21 34 51.61	+ 0.01	+ 42.02	- 2.87		21 35 30.77
2		Weisse xxi. 1240		21 52 40.61	- 0.07	42.02	- 3.32	- 42.01	21 53 19.24
3	10	6750 B.A.C.		19 35 14.23	+ 0.13	42.65	- 2.33		19 35 54.68
4		* 4° 13'	4	19 43 5.02	+ 0.73	42.65	+ 1.07	* 42.62	19 43 49.47
5		59 Sagittari b ...	6	19 47 27.21	+ 0.08	42.65	- 3.29		19 48 6.65
6		6878 B.A.C.		19 54 32.64	+ 0.08	42.65	- 3.19		19 55 12.18
7		D 1st L.		20 0 18.90	+ 0.08	42.65	.....		20 2 15.62
8		a ¹ Capricorni ...		20 9 0.27	+ 0.10	42.65	- 3.01		20 9 40.01
9		7044 B.A.C.		20 20 7.64	+ 0.09	42.66	- 3.18		20 20 47.21
10		* 2° 1' S.P.	3	21 47 23.13	- 1.15	42.67	+ 4.21	* 42.73	21 48 8.86
11		α Aquarii.....	3	21 57 43.33	+ 0.11	42.67	- 3.07	42.81	21 58 23.04
12		γ Aquarii.....		22 13 33.40	+ 0.11	42.67	- 3.12	42.66	22 14 13.06
13		β Lacertæ		22 17 14.09	+ 0.18	42.67	- 2.68	42.60	22 17 54.26
14		α Lacertæ		22 24 41.81	+ 0.17	42.67	- 2.71	42.61	22 25 21.94
15	12	α Delphini.....		20 32 16.30	+ 0.09	43.07	- 2.57		20 32 56.89
16		α Cygni		20 35 50.47	+ 0.13	43.07	- 2.20	43.00	20 36 31.47
17		γ Delphini (1st)		20 39 17.17	+ 0.09	43.07	- 2.60		20 39 57.73
18		ζ Cygni.....		21 6 7.79	+ 0.11	43.07	- 2.51	43.14	21 6 48.46
19		α Cephei		21 14 27.27	+ 0.18	43.07	- 2.30		21 15 8.22
20		β Cephei.....		21 26 6.11	+ 0.21	43.08	- 2.38		21 26 47.02
21	13	7320 B.A.C.		20 56 48.70	+ 0.10	43.31	- 2.37	43.29	20 57 29.74
22		61 Cygni (1st) ..		20 59 45.93	+ 0.10	43.31	- 2.62		21 0 26.72
23		ζ Cygni		21 6 7.59	+ 0.10	43.31	- 2.50	43.34	21 6 48.50
24		α Cephei		21 14 27.01	+ 0.16	43.31	- 2.27		21 15 8.21
25		β Cephei.....		21 26 5.90	- 0.02	43.31	- 2.34		21 26 46.85
26		42 Capricorni ...	4	21 33 2.63	+ 0.04	43.31	- 3.30		21 33 42.68
27		* 3° 30' S.P.	2	21 46 58.87	- 0.67	43.31	+ 1.06		21 47 42.57
28		* 2° 1' S.P.	3	21 47 24.66	- 1.24	43.31	+ 3.21	* 42.29	21 48 9.94
29		ε Pegasi		21 59 37.94	+ 0.04	43.32	- 2.74		22 0 18.56
30		7738 B.A.C.	5	22 3 25.54	+ 0.15	43.32	- 2.61		22 4 6.40
31		7782 B.A.C.		22 10 34.31	+ 0.14	43.32	- 2.64		22 11 15.13
32		σ Aquarii.....		22 22 21.40	+ 0.05	+ 43.32	- 3.30	- 43.23	22 23 1.47

4—14 Cloudy.
7 Semi-diam. + 73°.99.

23—26 Cloudy.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Sept. 13	3824 Gr.		22 24 1.00	+ 0.67	+ 43.32	- 5.89	* 42.33	22 24 39.10
2		7 Pegasi		22 35 34.76	+ 0.18	43.32	- 2.80		22 36 15.46
3		8 Aquarii.....		22 46 20.44	+ 0.04	43.32	- 3.43	43.33	22 47 0.37
4		D 1st L.		22 58 51.59	+ 0.05	43.33	.....		23 0 44.99
5		8184 B.A.C.		23 21 25.13	+ 0.06	43.33	- 3.21		23 22 5.31
6		74 Pegasi.....		23 29 41.89	+ 0.08	43.33	- 2.98		23 30 22.32
7		λ Piscium.....		23 34 1.60	+ 0.06	43.33	- 3.12	43.39	23 34 41.87
8		20 Piscium n		23 39 52.16	+ 0.06	43.33	- 3.18	43.32	23 40 32.37
9	16	53 Sagittarii.....	3	19 30 29.26	+ 0.15	43.89	- 3.01		19 31 10.29
10		β Aquilæ.....		19 47 32.99	+ 0.17	43.89	- 2.49	43.72	19 48 14.56
11		6880 B.A.C.	4	19 54 43.01	+ 0.16	43.89	- 2.94		19 55 24.12
12		69 Draconis.....		20 2 52.00	+ 0.24	43.89	- 0.89		20 3 35.24
13		6980 B.A.C.		20 10 6.16	+ 0.20	43.89	- 1.68		20 10 48.57
14		7009 B.A.C.		20 14 41.89	+ 0.15	43.89	- 3.01		20 15 22.92
15		69 Aquilæ		20 21 26.11	+ 0.16	43.89	- 2.80		20 22 7.36
16		7320 B.A.C.		20 56 48.04	+ 0.18	43.90	- 2.33	43.83	20 57 29.79
17		61 Cygni (2d)...		20 59 46.66	+ 0.18	43.90	- 2.58		21 0 28.16
18		7387 B.A.C.	5	21 8 25.26	+ 0.20	43.90	- 2.16		21 9 7.20
19		1 Pegasi (1st) ...		21 14 42.46	+ 0.17	43.90	- 2.64		21 15 23.89
20		7484 B.A.C.	3	21 24 13.91	+ 0.32	43.90	- 2.40		21 24 55.73
21		κ Capricorni.....		21 33 56.16	+ 0.15	43.90	- 3.41		21 34 36.80
22		7562 B.A.C.		21 36 33.50	+ 0.15	43.90	- 3.18		21 37 14.37
23		* 3° 30' .....S.P.	3	21 46 57.80	- 0.07	43.90	+ 0.42		21 47 42.05
24		* 2° 1' .....S.P.	3	21 47 23.66	- 0.27	43.90	+ 2.14	* 43.39	21 48 9.43
25		15 Cephei.....	5	21 58 31.02	+ 0.20	43.90	- 2.53		21 59 12.59
26		7782 B.A.C.		22 10 33.44	+ 0.19	43.90	- 2.61		22 11 14.92
27		β Lacertæ		22 17 12.70	+ 0.20	43.90	- 2.64	43.93	22 17 54.16
28		3824 Gr.	3	22 24 0.04	+ 0.38	43.91	- 5.59	* 43.28	22 24 38.74
29		15 Lacertæ		22 44 51.34	+ 0.19	43.91	- 2.78	44.13	22 45 32.66
30	22	κ Delphini		20 31 26.56	+ 0.17	44.06	- 2.54		20 32 8.25
31		S. 2718 (2d)		20 35 2.76	+ 0.17	44.06	- 2.52		20 35 44.47
32		ε Cygni		20 39 41.21	+ 0.19	44.06	- 2.21	- 43.95	20 40 23.25
33		61 Cygni (2d)...		20 59 46.60	+ 0.18	+ 44.06	- 2.50		21 0 28.34

September 22. High wind and passing clouds.

4 Semi-diam. + 70°.02.

9—11 Cloudy.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduc- tion to Mean R.A.	Clock Error by Observa- tion.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.		
					Instrum.	Clock.					
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	Sept. 22	ζ Cygni.....		21 6 6.71	+ 0.18	+ 44.06	- 2.40	- 44.04	21 6 48.55		
2		35 Vulpeculæ ...		21 20 37.69	+ 0.18	44.05	- 2.50		21 21 19.42		
3		72 Cygni.....		21 28 11.91	+ 0.18	44.05	- 2.41		21 28 53.73		
4		7533 B.A.C.		21 32 38.57	+ 0.21	44.05	- 2.19		21 33 20.64		
5		7586 B.A.C.		21 39 9.33	+ 0.18	44.05	- 2.61		21 39 50.95		
6		β Lacertæ.....		22 17 12.59	+ 0.19	44.04	- 2.59	44.00	22 17 54.23		
7		5 Lacertæ.....		22 22 50.57	+ 0.18	44.04	- 2.63	44.03	22 23 32.16		
8		7865 B.A.C.		22 26 33.04	+ 0.16	44.04	- 3.10		22 27 14.14		
9		η Pegasi.....		22 35 34.16	+ 0.18	44.04	- 2.78		22 36 15.60		
10	24	β Lacertæ.....		22 17 13.13	+ 0.19	43.37	- 2.56	43.43	22 17 54.13		
11		3824 Gr.	3	22 23 58.98	+ 0.38	43.37	- 4.61	* 43.36	.....	
12		ζ Pegasi.....		22 33 36.29	+ 0.17	43.37	- 2.96	43.34	22 34 16.87		
13		μ Pegasi.....		22 42 22.61	+ 0.18	43.37	- 2.84	43.35	22 43 3.32		
14	29	7753 B.A.C.		22 5 46.06	+ 0.24	42.24	- 2.57		22 6 25.97		
15		7782 B.A.C.		22 10 34.93	+ 0.24	42.24	- 2.41		22 11 15.00		
16		β Lacertæ.....		22 17 14.23	+ 0.24	42.24	- 2.50	42.22	22 17 54.21		
17		α Lacertæ.....	4	22 24 41.95	+ 0.24	42.24	- 2.56	42.25	22 25 21.87		
18	30	6986 B.A.C.		20 11 7.46	+ 0.24	41.91	- 1.78	42.07	20 11 47.83		
19		7069 B.A.C.		20 23 8.47	+ 0.22	41.90	- 3.07		20 23 47.52		
20		1 Aquarii.....		20 31 22.49	+ 0.23	41.90	- 2.61		20 32 2.01		
21		74 Draconis.....	3	20 36 52.87	+ 0.26	41.90	+ 0.55		20 37 35.58		
22		7217 B.A.C.	3	20 40 50.03	+ 0.25	41.90	+ 0.02		20 41 32.20		
23		* 4° 53'	4	20 55 35.49	+ 0.27	41.90	+ 1.88	* 41.80	20 56 19.54		
24		* 2° 31' .....S.T.	2	21 0 40.41	+ 0.20	41.90	- 9.09	* 41.74	21 1 13.42		
25		7438 B.A.C.	6	21 16 30.99	+ 0.25	41.89	- 1.17		21 17 11.96		
26		16 Pegasi.....		21 45 51.16	+ 0.24	41.88	- 2.56		21 46 30.72		
27		7650 B.A.C.		21 50 1.34	+ 0.22	41.88	- 3.06	- 41.64	21 50 40.38		
28		20 Pegasi.....		21 53 25.23	+ 0.23	41.88	- 2.76		21 54 4.58		
29		7720 B.A.C.		22 2 12.50	+ 0.23	41.88	- 3.07		22 2 51.54		
30		7782 B.A.C.		22 10 35.03	+ 0.24	41.88	- 2.40		22 11 14.75		
31		35 Pegasi.....		22 19 54.89	+ 0.23	41.88	- 2.98		22 20 34.02		
32		39 Pegasi.....		22 24 58.84	+ 0.23	+ 41.88	- 2.79		22 25 38.16		

2 Cloudy.
4—5 Cloudy.

16—17 Cloudy.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Sept. 30	7951 B.A.C.		22 39 45.66	+ 0.22	+ 41.87	- 3.18		22 40 24.57
2		ε Cephei 5		22 43 54.22	+ 0.25	41.87	- 2.76		22 44 33.58
3		2 Piscium 5		22 51 25.73	+ 0.23	41.87	- 3.12		22 52 4.71
4		α Pegasi 5		22 56 56.24	+ 0.23	41.87	- 2.96	- 41.89	22 57 35.38
5		8147 B.A.C. 5		23 14 56.19	+ 0.23	41.86	- 2.97		23 15 35.31
6		8193 B.A.C. 5		23 23 26.33	+ 0.22	41.86	- 3.26		23 24 5.15
7		λ Andromedæ... 5		23 29 52.34	+ 0.24	41.86	- 2.97	41.90	23 30 31.47
8	Oct. 10	11 Aquarii 5		20 52 20.59	+ 0.11	40.74	- 2.68		20 52 58.76
9		61 Cygni (2d)... 5		20 59 49.41	+ 0.19	40.74	- 2.18		21 0 28.16
10		7387 B.A.C. 5		21 8 27.56	+ 0.19	40.73	- 1.42		21 9 7.06
11		α Cephei 5		21 14 28.90	+ 0.27	40.73	- 1.43		21 15 8.47
12		35 Vulpeculæ ... 5		21 20 40.70	+ 0.16	40.73	- 2.26		21 21 19.33
13		71 Cygni <i>g</i> 5		21 23 29.17	+ 0.21	40.73	- 1.94	40.71	21 24 8.17
14		5 Pegasi 5		21 30 22.73	+ 0.15	40.73	- 2.45		21 31 1.16
15		μ Cygni (1st)... 5		21 37 3.57	+ 0.17	40.73	- 2.34		21 37 42.13
16		7705 B.A.C. 5		21 59 33.53	+ 0.20	40.73	- 2.25	40.83	22 0 12.21
17		11 Lacertæ 6		22 33 33.99	+ 0.20	40.73	- 2.52	40.66	22 34 12.40
18	13	61 Cygni (2d)... 5		20 59 49.74	+ 0.15	40.34	- 2.13		21 0 28.10
19		ζ Cygni 5		21 6 10.03	+ 0.14	40.34	- 2.08	40.44	21 6 48.43
20		ζ Pegasi 5		22 33 39.30	+ 0.10	40.33	- 2.85	40.29	22 34 16.88
21		ξ Pegasi 5		22 38 52.36	+ 0.11	40.33	- 2.86		22 39 29.94
22		μ Pegasi 5		22 42 25.63	+ 0.14	40.32	- 2.73	40.26	22 43 3.36
23	17	α Aquarii 5		21 57 46.99	+ 0.03	39.09	- 2.83	38.99	21 58 23.28
24		μ Pegasi 5		22 42 26.80	+ 0.10	39.09	- 2.69	39.09	22 43 3.30
25		α Pegasi 5		22 56 59.03	+ 0.07	39.09	- 2.88	39.18	22 57 35.31
26	18	71 Cygni <i>g</i> 5		21 23 30.59	+ 0.16	39.08	- 1.75	39.15	21 24 8.08
27		24 Aquarii 5		21 31 29.30	+ 0.03	39.08	- 2.68		21 32 5.73
28		ε Pegasi 5		21 36 30.21	+ 0.06	39.08	- 2.55	- 39.08	21 37 6.80
29		7590 B.A.C. 5		21 39 36.99	+ 0.07	39.08	- 2.43		21 40 13.71
30		7628 B.A.C. 5		21 46 2.69	+ 0.02	39.08	- 2.83		21 46 38.96
31		7668 B.A.C. 5		21 53 56.30	+ 0.23	+ 39.08	- 1.78		21 54 33.83

October 18. The stars very unsteady.

1 Companion (8.0) sp.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Oct. 18	18 Cephei.....		21 58 56.56	+ 0.28	+ 39.08	- 1.68		21 59 34.24
2		7726 B.A.C.		22 2 26.97	+ 0.02	39.08	- 2.91		22 3 3.16
3		* 4° 52' S.P.	3	22 13 3.19	- 1.36	39.08	- 4.74	* 39.03	22 13 36.17
4		34 Pegasi.....		22 18 41.20	+ 0.03	39.08	- 2.84		22 19 17.47
5		3824 Gr.	3	22 23 57.82	+ 1.58	39.08	- 0.29	* 39.00	22 24 38.19
6		ζ Pegasi.....		22 33 40.54	+ 0.06	39.08	- 2.81	39.05	22 34 16.87
7		77 Aquarii.....		22 46 32.26	- 0.02	39.08	- 3.32		22 47 8.00
8		8002 B.A.C.		22 51 7.27	- 0.06	39.08	- 3.67		22 51 42.62
9		β Pegasi.....		22 56 11.49	+ 0.10	39.08	- 2.73		22 56 47.94
10		8064 B.A.C.		23 1 22.03	- 0.05	39.08	- 3.66		23 1 57.40
11		8122 B.A.C.		23 12 3.99	+ 0.43	39.08	- 2.88		23 12 40.62
12		14 Andromedæ..		23 23 36.83	+ 0.13	39.08	- 2.83	38.92	23 24 13.21
13		8221 B.A.C.		23 29 35.73	- 0.01	39.08	- 3.38		23 30 11.42
14		8298 B.A.C.	5	23 44 30.38	+ 0.55	39.08	- 3.99		23 45 6.02
15		R Cassiopeiæ....		23 50 30.19	+ 0.19	39.08	- 3.07	39.19	23 51 6.39
16		8374 B.A.C.		23 58 32.71	+ 0.11	39.08	- 3.07		23 59 8.83
17		6 Ceti		0 3 20.33	- 0.02	39.08	- 3.48		0 3 55.91
18		φ ¹ Ceti		0 36 20.01	0.00	39.07	- 3.37		0 36 55.71
19		221 B.A.C.		0 40 14.19	+ 0.04	39.07	- 3.31		0 40 49.99
20	21	* 2° 45' S.P.	3	21 29 49.25	+ 0.95	38.19	- 14.41	* 38.34	21 30 13.98
21		ε Pegasi		21 36 30.86	+ 0.23	38.19	- 2.51	38.22	21 37 6.77
22		78 Draconis.....	5	21 40 39.95	+ 0.14	38.19	- 0.70		21 41 17.58
23		7628 B.A.C.		21 46 3.44	+ 0.18	38.19	- 2.71		21 46 39.10
24		Weisse xxi. 1240.		21 52 43.81	+ 0.23	38.19	- 3.00	38.19	21 53 19.23
25		ξ Cephei (2d) ...		21 59 0.49	+ 0.17	38.19	- 1.52		21 59 37.33
26		7745 B.A.C.		22 5 3.71	+ 0.23	38.19	- 3.35		22 5 38.78
27		49 Aquarii.....		22 14 54.00	+ 0.24	38.19	- 3.38		22 15 29.05
28		53 Aquarii (1st).		22 18 9.63	+ 0.23	38.19	- 3.20		22 18 44.85
29		3824 Gr.	3	22 23 59.48	- 0.18	38.19	+ 0.37	* 38.44	22 24 37.86
30		31 Cephei.....	5	22 31 35.87	+ 0.12	38.19	- 1.79		22 32 12.39
31		7951 B.A.C. (1st).		22 39 49.11	+ 0.23	38.18	- 3.04		22 40 24.48
32		15 Lacertæ		22 44 56.81	+ 0.20	38.18	- 2.47	- 38.34	22 45 32.72
33		51 Pegasi.....		22 49 48.07	+ 0.22	38.18	- 2.74		22 50 23.73
34		8156 B.A.C.		23 16 7.60	+ 0.21	+ 38.18	- 2.58		23 16 43.41

LAMP WEST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Oct. 21	8184 B.A.C.		23 21 30.34	+ 0.23	+ 38.18	- 3.12		23 22 5.63
2		γ Cephei		23 32 53.19	+ 0.10	38.18	- 3.54		23 33 27.93
3		R Cassiopeiae		23 50 31.16	+ 0.20	38.17	- 3.05	- 38.19	23 51 6.48
4		87 Pegasi.....		0 1 1.81	+ 0.22	38.17	- 3.11		0 1 37.09
5		γ Pegasi.....		0 5 14.44	+ 0.22	38.17	- 3.15	37.95	0 5 49.68
6		46 B.A.C.		0 8 39.63	+ 0.18	38.17	- 3.42		0 9 14.56
7		42 Piscium		0 14 23.50	+ 0.22	38.17	- 3.19		0 14 58.70
8		96 B.A.C.		0 19 9.76	+ 0.23	38.17	- 3.36		0 19 44.80
9		111 B.A.C.		0 21 59.26	+ 0.23	38.17	- 3.50		0 22 34.16
10		132 B.A.C.		0 25 32.14	+ 0.22	38.17	- 3.33		0 26 7.20
11		161 B.A.C.		0 29 30.80	+ 0.22	38.17	- 3.31		0 30 5.88
12		167 B.A.C.		0 31 6.77	+ 0.22	38.17	- 3.31		0 31 41.85
13		ϕ^1 Ceti		0 36 20.64	+ 0.23	38.17	- 3.45		0 36 55.59
14		270 B.A.C.		0 50 16.54	+ 0.22	38.17	- 3.33	38.20	0 50 51.60
15		290 B.A.C.		0 55 13.37	+ 0.20	38.17	- 3.70		0 55 48.04
16	24	7628 B.A.C.		21 46 3.73	+ 0.07	37.88	- 2.76		21 46 38.92
17		7650 B.A.C.		21 50 5.14	+ 0.07	37.88	- 2.80	37.73	21 50 40.29
18		19 Cephei		22 0 6.29	+ 0.31	37.88	- 1.51		22 0 42.97
19		* 3° 13' S.P.	3	22 8 19.12	- 1.92	37.88	- 8.89	* 37.95	22 8 46.19
20		Weisse xxii. 299.		22 14 21.50	+ 0.10	37.88	- 2.69		22 14 56.79
21		3824 Gr.	3	22 23 57.48	+ 1.55	37.88	+ 1.05	* 38.03	22 24 37.96
22		8 Lacertæ (1st).		22 28 52.17	+ 0.18	37.88	- 2.33	38.10	22 29 27.90
23		11 Lacertæ		22 33 36.67	+ 0.20	37.88	- 2.31	37.77	22 34 12.44
24		ξ Pegasi		22 38 54.79	+ 0.11	37.87	- 2.76		22 39 30.01
25		ι Cephei		22 43 57.77	+ 0.35	37.87	- 2.10		22 44 33.89
26		8004 B.A.C.		22 51 25.90	+ 0.05	37.87	- 2.93		22 52 0.89
27		83 Aquarii h^1		22 57 4.40	+ 0.07	37.87	- 3.14		22 57 39.20
28		2 Cassiopeiae.....		23 2 59.81	+ 0.28	37.87	- 2.47		23 3 35.49
29		ψ^1 Aquarii		23 7 46.07	+ 0.06	37.87	- 3.20		23 8 20.80
30		8184 B.A.C.		23 21 30.70	+ 0.07	37.87	- 3.18		23 22 5.46
31		8221 B.A.C.		23 29 36.93	+ 0.05	37.86	- 3.34		23 30 11.50
32		8239 B.A.C.		23 33 7.24	+ 0.06	37.86	- 3.33		23 33 41.83
33		78 Pegasi.....		23 36 10.23	+ 0.16	37.86	- 2.91		23 36 45.34
34		8289 B.A.C.		23 42 36.51	+ 0.24	+ 37.86	- 2.94	- 38.00	23 43 11.67
3 Dull red.					20 Observed for S Pegasi, which was invisible in a dark field.				

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Oct. 24	8321 B.A.C.	5	23 49 13.49	+ 0.95	+ 37.86	- 5.05		23 49 47.25
2		85 Pegasi		23 54 4.46	+ 0.15	37.86	- 3.03		23 54 39.44
3		8374 B.A.C.		23 58 33.96	+ 0.16	37.86	- 3.05		23 59 8.93
4		6 Ceti.....		0 3 21.74	+ 0.05	37.86	- 3.47		0 3 56.18
5		38 Piscium (2d)		0 9 24.81	+ 0.10	37.86	- 3.20		0 9 59.57
6		9 Ceti		0 14 54.59	+ 0.05	37.86	- 3.44		0 15 29.06
7		97 B.A.C.		0 19 22.34	+ 0.09	37.85	- 3.28		0 19 57.00
8		β Ceti		0 35 47.36	+ 0.04	37.85	- 3.56	- 37.73	0 36 21.69
9		η Cassiopeie ...		0 39 50.63	+ 0.27	37.85	- 3.66		0 40 25.09
10		ν^1 Cassiopeie ...		0 45 54.80	+ 0.28	37.85	- 3.76		0 46 29.17
11		* 30° 39'		0 53 31.40	+ 0.29	37.85	- 3.90		0 54 5.64
12	25	32 Aquarii		21 56 48.01	+ 0.22	37.54	- 2.74		21 57 23.03
13		7732 B.A.C.	3	22 2 30.48	+ 0.86	37.54	+ 0.94		22 3 9.82
14		7735 B.A.C.	3	22 2 37.15	+ 0.86	37.54	+ 0.93		22 3 16.48
15		* 3° 13'	3	22 8 20.12	- 1.30	37.54	- 9.28	* 36.72	22 8 47.08
16		Weisse xxii. 299		22 14 21.09	+ 0.24	37.54	- 2.68		22 14 57.09
17		53 Aquarii (1st)		22 18 10.24	+ 0.18	37.54	- 3.15		22 18 44.81
18		ζ Aquarii (1st) ..		22 20 50.19	+ 0.21	37.54	- 2.84		22 21 25.10
19		ν Aquarii.....		22 26 14.33	+ 0.40	37.54	- 3.27		22 26 49.00
20		7891 B.A.C.		22 31 8.56	+ 0.16	37.54	- 3.49		22 31 42.77
21		ξ Pegasi		22 38 55.04	+ 0.24	37.53	- 2.75		22 39 30.06
22		15 Lacertæ		22 44 57.36	+ 0.31	37.53	- 2.41	37.62	22 45 32.79
23		3 Piscium		22 52 40.09	+ 0.21	37.53	- 2.99		22 53 14.84
24		87 Aquarii h^4 ...		22 59 7.73	+ 0.21	37.53	- 3.14		22 59 42.33
25		6 Andromedæ...		23 3 13.21	+ 0.31	37.53	- 2.57	37.48	23 3 48.48
26		8107 B.A.C.		23 9 33.99	+ 0.35	37.53	- 2.57		23 10 9.30
27		67 Pegasi.....		23 17 13.37	+ 0.28	37.53	- 2.75		23 17 48.43
28		* 4° 23'	3	23 23 35.99	+ 1.37	37.53	- 4.49	* 38.16	23 24 10.40
29		ι Piscium.....		23 31 58.04	+ 0.23	37.52	- 3.11	- 37.59	23 32 32.68
30		ω^2 Aquarii		23 34 40.80	+ 0.19	37.52	- 3.38		23 35 15.13
31		20 Piscium n ...		23 39 57.84	+ 0.21	37.52	- 3.21		23 40 32.36
32		1 Ceti.....		23 50 22.36	+ 0.19	37.52	- 3.44		23 50 56.63
33		81 B.A.C.		0 16 33.81	+ 0.21	37.51	- 3.32		0 17 8.21
34		98 B.A.C.		0 19 27.56	+ 0.24	+ 37.51	- 3.19		0 20 2.12

October 25. The Stars bright, but very unsteady.

5 Companion (8.3) sp.
 17 Companion (6.7).
 18 Companion (4.5) sf.

19 Clouds at south horizon.
 20 * (1.0 less) 3' sf. 3^s.

LAMP WEST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Oct. 25	* 6° 7'	3	0 25 53.34	+ 1.04	+ 37.51	- 8.12		0 26 23.77
2		* 6° 3'	3	0 26 54.28	+ 1.05	37.51	- 8.28	- * 37.43	0 27 24.56
3		* 6° 2'	3	0 27 16.11	+ 1.05	37.51	- 8.31	* 36.90	0 27 46.36
4		β Ceti		0 35 47.59	+ 0.18	37.51	- 3.56	37.36	0 36 21.72
5		62 Piscium		0 40 15.06	+ 0.23	37.51	- 3.31		0 40 49.49
6		1937 Gr. S.P.	3	0 47 16.71	- 0.61	37.51	+ 5.60	* 38.09	0 47 59.21
7		θ^1 Ceti	1	16 15.33	+ 0.21	37.50	- 3.46	37.53	1 16 49.58
8	27	67 Pegasi		23 17 13.61	+ 0.25	37.15	- 2.74		23 17 48.27
9		* 4° 23'	3	23 23 35.56	+ 1.88	37.15	- 4.14	* 37.73	23 24 10.45
10		ϵ Piscium		23 31 58.50	+ 0.18	37.14	- 3.10	37.17	23 32 32.72
11		* 2° 12' (1st) S.P.	4	23 50 39.28	- 3.20	37.14	+ 7.05	* 38.33	23 51 20.27
12		27 Piscium		23 50 44.11	+ 0.15	37.14	- 3.16	37.06	23 51 18.24
13		* 2° 12' (2d) S.P.	4	23 51 0.53	- 3.20	37.14	+ 7.11	* 37.93	23 51 41.58
14		38 Piscium (1st)		0 9 25.19	+ 0.19	37.13	- 3.19		0 9 59.32
15		86 B.A.C.		0 17 27.31	+ 0.87	37.13	- 5.21		0 18 0.10
16		138 B.A.C.		0 26 34.83	+ 0.15	37.13	- 3.36		0 27 8.75
17		54 Piscium		0 31 18.53	+ 0.22	37.13	- 3.23		0 31 52.65
18		178 B.A.C.		0 33 24.13	+ 0.23	37.13	- 3.23		0 33 58.26
19		64 Piscium		0 40 50.96	+ 0.21	37.13	- 3.27		0 41 25.03
20		36 Andromedæ .		0 46 41.97	+ 0.23	37.12	- 3.29		0 47 16.03
21		26 Ceti		0 55 50.77	+ 0.17	37.12	- 3.38		0 56 24.68
22		352 B.A.C.	1	3 40.73	+ 0.30	37.12	- 3.57	37.43	1 4 14.58
23		θ^1 Ceti	1	16 16.07	+ 0.14	37.12	- 3.47	36.87	1 16 49.86
24	28	15 Cephei		21 58 36.81	+ 0.47	36.67	- 1.45		21 59 12.50
25		λ Cephei		22 6 2.04	+ 0.46	36.66	- 1.57		22 6 37.59
26		Weisse xxii. 299		22 14 22.70	+ 0.20	36.66	- 2.66		22 14 56.90
27		ζ Aquarii (2d)...		22 20 50.96	+ 0.17	36.66	- 2.81		22 21 24.98
28		7876 B.A.C.		22 28 16.89	+ 0.63	36.66	- 1.52		22 28 52.66
29		7878 B.A.C.	5	22 28 37.19	+ 0.64	36.66	- 1.51		22 29 12.98
30		λ Andromedæ...		23 29 57.27	+ 0.36	36.65	- 2.76	36.64	23 30 31.52
31		78 Pegasi		23 36 11.14	+ 0.28	36.64	- 2.88		23 36 45.18
32		ω Piscium		23 51 21.37	+ 0.20	36.64	- 3.13	- 36.76	23 51 55.08
33		6 B.A.C.		0 0 54.85	+ 1.06	+ 36.64	- 4.44		0 1 28.09

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Oct. 28	81 B.A.C.		0 16 34.63	+ 0.17	+ 36.64	- 3.31		0 17 8.13
2		67 Gr.	3	0 22 3.72	+ 2.33	36.64	- 9.64	* 36.46	0 22 33.05
3		54 Piscium		0 31 19.09	+ 0.25	36.63	- 3.22		0 31 52.75
4		β Ceti		0 35 48.51	+ 0.11	36.63	- 3.56	36.51	0 36 21.69
5		1937 Gr. S.P.	5	0 47 19.41	- 1.44	36.63	+ 5.39	* 36.43	0 47 59.99
6	30	* 1° 35' S.P.	3	22 52 51.89	- 6.26	36.79	- 7.72	* 36.16	22 53 14.70
7		8026 B.A.C.	3	22 54 46.91	+ 1.53	36.79	- 1.10		22 55 24.13
8		8048 B.A.C.	5	22 58 9.43	+ 0.97	36.79	- 1.69		22 58 45.50
9		94 Aquarii (1st)		23 10 58.44	- 0.07	36.79	- 3.24	36.86	.....
10		8147 B.A.C.		23 15 1.51	+ 0.05	36.79	- 2.81	36.72	.....
11		* 4° 23' S.P.	3	23 23 36.09	+ 2.24	36.79	- 3.56	* 36.26	23 24 11.56
12	31	7642 B.A.C.		21 49 17.51	+ 0.22	36.21	- 1.46		21 49 52.48
13		20 Pegasi		21 53 30.61	+ 0.05	36.21	- 2.40		21 54 4.47
14		ι Aquarii		21 58 6.21	- 0.04	36.21	- 2.92	36.11	21 58 39.46
15		7726 B.A.C.		22 2 29.73	- 0.01	36.20	- 2.76		22 3 3.16
16		7760 B.A.C. (2d).		22 6 45.84	+ 0.42	36.20	- 0.90		22 7 21.56
17		β Lacertæ		22 17 19.57	+ 0.21	36.20	- 1.85	36.26	22 17 54.13
18		36 Pegasi		22 21 23.30	+ 0.03	36.20	- 2.63		22 21 56.90
19		α Lacertæ		22 24 47.43	+ 0.20	36.20	- 1.98	36.23	22 25 21.85
20		7881 B.A.C.	5	22 29 8.08	+ 0.60	36.19	- 0.93		22 29 43.94
21		η Pegasi		22 35 41.44	+ 0.11	36.19	- 2.42		22 36 15.32
22	Nov. 4	γ Aquarii		22 13 40.46	+ 0.16	35.15	- 2.72	* 35.15	22 14 13.05
23		β Lacertæ		22 17 20.63	+ 0.23	35.15	- 1.74	35.07	22 17 54.27
24		39 Pegasi		22 25 5.23	+ 0.18	35.14	- 2.43		22 25 38.12
25		8 Lacertæ (2d) .		22 28 55.14	+ 0.20	35.14	- 2.15	- 35.03	22 29 28.33
26		ξ Pegasi		22 33 57.43	+ 0.17	35.14	- 2.64		22 39 30.10
27		ι Cephei		22 44 0.33	+ 0.26	35.14	- 1.70		22 44 34.03
28		51 Pegasi		22 49 51.10	+ 0.18	35.14	- 2.59		22 50 23.83
29		8026 B.A.C.	3	22 54 48.81	+ 0.51	35.14	- 0.32		22 55 24.14
30		5 Piscium A		23 0 46.11	+ 0.16	35.13	- 2.90		23 1 18.50
31		8083 B.A.C.		23 5 49.29	+ 0.23	35.13	- 2.27		23 6 22.38
32		8147 B.A.C.		23 15 3.10	+ 0.18	+ 35.13	- 2.76		23 15 35.65

October 31. Very foggy.

LAMP WEST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduc- tion to Mean R.A.	Clock Error by Observa- tion.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Nov. 4	* 4° 23'	3	23 23 37.76	+ 0.68	+ 35.13	- 2.53	* 35.12	.....
2		74 Pegasi.....		23 29 50.01	+ 0.19	35.13	- 2.89		23 30 22.44
3		8289 B.A.C.		23 42 39.09	+ 0.22	35.12	- 2.79	35.29	23 43 11.64
4	5	34 Pegasi.....		22 18 45.43	+ 0.22	34.72	- 2.63		22 19 17.74
5		7835 B.A.C.		22 21 47.54	+ 0.19	34.72	- 2.96		22 22 19.49
6		v Aquarii.....		22 26 17.26	+ 0.40	34.71	- 3.14		22 26 49.23
7		7951 B.A.C. (1st)		22 39 52.51	+ 0.21	34.71	- 2.89		22 40 24.54
8		77 Aquarii		22 46 36.56	+ 0.19	34.71	- 3.14		22 47 8.32
9		8002 B.A.C.		22 51 11.53	+ 0.16	34.71	- 3.46		22 51 42.94
10		β Piscium		22 56 0.86	+ 0.22	34.71	- 2.85	34.74	22 56 32.94
11		5 Andromedæ ...		23 0 40.71	+ 0.33	34.70	- 2.30	34.80	23 1 13.44
12		ψ^1 Aquarii.....		23 7 49.09	+ 0.20	34.70	- 3.10		23 8 20.89
13		94 Aquarii (1st)		23 11 0.34	+ 0.19	34.70	- 3.19		23 11 32.04
14		8193 B.A.C.		23 23 33.41	+ 0.21	34.70	- 3.09		23 24 5.23
15		* 4° 23'	4	23 23 36.99	+ 1.37	34.70	- 2.33	* 35.00	23 24 10.73
16		8289 B.A.C.		23 42 39.50	+ 0.33	34.69	- 2.77	34.75	23 43 11.75
17		* 2° 12' (1st) S.P.	3	23 50 44.33	- 2.02	34.69	+ 3.79	* 35.36	23 51 20.79
18		85 Pegasi.....		23 54 7.51	+ 0.27	34.69	- 2.95		23 54 39.52
19		* 2° 16' S.P.	5	0 6 2.05	- 1.94	34.68	+ 6.91	* 34.46	0 6 41.70
20		9 Ceti		0 14 57.76	+ 0.19	34.68	- 3.39		0 15 29.24
21		96 B.A.C.		0 19 13.29	+ 0.20	34.68	- 3.32		0 19 44.85
22		137 B.A.C.		0 26 11.50	+ 0.23	34.68	- 3.22		0 26 43.19
23		161 B.A.C.		0 29 34.33	+ 0.22	34.68	- 3.28		0 30 5.95
24		178 B.A.C.		0 33 26.50	+ 0.27	34.68	- 3.21		0 33 58.24
25		204 B.A.C.		0 37 14.60	+ 0.21	34.68	- 3.33		0 37 46.16
26		ϕ^2 Ceti.....		0 42 23.57	+ 0.20	34.67	- 3.44		0 42 55.00
27		397 B.A.C.		1 11 25.96	+ 0.22	34.66	- 3.42	34.51	1 11 57.42
28		38 Cassiopeia A	5	1 20 4.89	+ 0.47	34.66	- 5.03		1 20 34.99
29		454 B.A.C.		1 23 34.80	+ 0.23	34.66	- 3.44		1 24 6.25
30		51 Andromedæ..		1 28 39.29	+ 0.32	34.66	- 3.86	34.62	1 29 10.41
31		β Arietis.....		1 46 10.17	+ 0.26	34.65	- 3.56	- 34.68	1 46 41.52
32		3653 Lalande ...		1 51 10.54	+ 0.29	34.65	- 3.80		1 51 41.68
33		α Piscium (1st).		1 54 4.56	+ 0.22	+ 34.65	- 3.52		1 54 35.91
3 Very faint; in thick fog.					23 The stars unsteady from this time.				

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.					
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	Nov. 6	D 1st L.....		22 5 22.66	+ 0.05	+ 34.27	.....		22 7 6.02		
2		49 Aquarii.....		22 14 57.89	+ 0.02	34.27	- 3.17		22 15 29.01		
3		37 Pegasi.....		22 22 9.33	+ 0.12	34.26	- 2.64		22 22 41.07		
4		7891 B.A.C.....	5	22 31 11.91	0.00	34.26	- 3.33		22 31 42.34		
5		45 Pegasi.....		22 37 56.24	+ 0.16	34.26	- 2.51	- 34.04	22 38 28.15		
6		7 ² Aquarii.....		22 41 26.71	+ 0.05	34.26	- 3.05	34.22	22 41 57.97		
7		δ Aquarii.....		22 46 29.17	+ 0.05	34.26	- 3.11	34.27	22 47 0.37		
8		8004 B.A.C.....		22 51 29.31	+ 0.05	34.26	- 3.09		22 52 0.53		
9		β Piscium.....		22 56 1.21	+ 0.11	34.26	- 2.84	34.49	22 56 32.74		
10		5 Piscium A.....		23 0 46.94	+ 0.10	34.26	- 2.88		23 1 18.42		
11		8083 B.A.C.....		23 5 49.79	+ 0.36	34.25	- 2.22		23 6 22.18		
12		94 Aquarii (1st)		23 11 0.80	+ 0.05	34.25	- 3.17		23 11 31.93		
13		8147 B.A.C.....		23 15 3.76	+ 0.17	34.25	- 2.74		23 15 35.44		
14		* 4° 23'.....	3	23 23 36.49	+ 2.28	34.25	- 2.12	* 34.38	23 24 10.90		
15		γ Cephei.....		23 32 55.81	+ 0.82	34.25	- 2.65		23 33 28.23		
16		8338 B.A.C.....		23 52 53.01	+ 0.42	34.24	- 2.94		23 53 24.73		
17		10 B.A.C.....		0 1 29.94	0.00	34.24	- 3.63		0 2 0.55		
18		γ Pegasi.....		0 5 18.27	+ 0.15	34.24	- 3.09	34.13	0 5 49.57		
19		* 6° 7'.....	5	0 25 55.42	+ 1.66	34.24	- 7.12		0 26 24.20		
20		201 B.A.C.....		0 36 35.10	+ 0.35	34.23	- 3.46		0 37 6.22		
21		1937 Gr. S.P.	5	0 47 22.41	- 1.51	34.23	+ 4.57	* 34.32	0 47 59.70		
22		540 B.A.C.....		1 38 28.13	+ 0.28	34.22	- 3.88	34.33	1 38 58.75		
23		8 ζ Piscium (2d) ..		1 5 43.13	+ 0.15	34.38	- 3.38		1 6 14.28		
24		397 B.A.C.....		1 11 26.14	+ 0.14	34.38	- 3.42	34.41	1 11 57.24		
25		θ ¹ Ceti.....		1 16 18.61	+ 0.11	34.38	- 3.50	34.39	1 16 49.60		
26		452 B.A.C.....		1 23 5.00	+ 0.05	34.38	- 3.70		1 23 35.73		
27		51 Andromedæ .		1 28 39.57	+ 0.30	34.38	- 3.86	34.36	1 29 10.39		
28		535 B.A.C.....		1 36 52.89	+ 0.43	34.38	- 4.68		1 37 23.02		
29		ζ Ceti.....		1 43 50.30	+ 0.10	34.38	- 3.55		1 44 21.23		
30		56 Andromedæ .		1 47 5.91	+ 0.24	34.38	- 3.76		1 47 36.77		
31		612 B.A.C.....		1 51 55.16	+ 0.14	34.38	- 3.53		1 52 26.15		
32		20 Arietis.....		2 7 1.01	+ 0.21	34.38	- 3.65		2 7 31.95		
33		66 Andromedæ .		2 17 43.27	+ 0.31	+ 34.38	- 4.37	- 34.35	2 18 13.59		

1 Semi-diam. + 69".04.

16 The minutes were noted one too great.

LAMP WEST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Nov. 10	7 Cassiopeiae		0 39 54.00	+ 0.33	+ 34.30	- 3.52		0 40 25.11
2		2 Urs. Min.	3	0 49 24.42	+ 1.48	34.30	- 10.78	* 34.56	0 49 49.42
3		ε Piscium		0 54 57.31	+ 0.18	34.30	- 3.34	34.24	0 55 28.45
4		80 Piscium e		1 0 26.23	+ 0.17	34.30	- 3.37	34.36	1 0 57.33
5		35 Cassiopeiae ...		1 11 0.44	+ 0.39	34.30	- 4.30		1 11 30.83
6		* 5° 20' S.P.	2	1 17 54.70	- 0.90	34.30	+ 7.41	* 34.51	1 18 35.51
7		7 Andromedæ...		1 31 34.80	+ 0.26	34.30	- 3.71	34.39	1 32 5.65
8		7 Ceti		1 36 51.91	+ 0.13	34.30	- 3.59		1 37 22.75
9		γ 1st L.		1 42 42.70	+ 0.20	34.30	.....		1 44 28.00
10		α Arietis		1 58 33.09	+ 0.22	34.30	- 3.66	34.15	1 59 3.95
11		θ Arietis		2 9 36.56	+ 0.21	34.30	- 3.66	34.36	2 10 7.41
12	14	7 Pegasi		23 12 59.23	+ 0.24	33.87	- 2.60		23 13 30.74
13		* 4° 23'	3	23 23 35.83	+ 1.91	33.87	- 0.27	* 33.56	23 24 11.34
14		λ Andromedæ...		23 29 59.96	+ 0.32	33.87	- 2.51	33.74	23 30 31.64
15		λ Piscium		23 34 10.96	+ 0.18	33.87	- 2.98	33.77	23 34 42.03
16		8298 B.A.C.	5	23 44 33.88	+ 0.75	33.87	- 2.57		23 45 5.93
17		8333 B.A.C.		23 51 46.57	+ 0.16	33.87	- 3.16		23 52 17.44
18		1850 Gr. S.P.	3	23 56 53.78	- 1.88	33.87	- 0.05	* 33.57	23 57 25.72
19		6 B.A.C.	5	0 0 57.23	+ 0.87	33.87	- 3.35		0 1 28.62
20		42 Piscium		0 14 27.77	+ 0.21	33.86	- 3.09		0 14 58.75
21		10 Ceti		0 18 43.49	+ 0.18	33.86	- 3.22		0 19 14.31
22		12 Ceti		0 22 10.71	+ 0.16	33.86	- 3.27	33.88	0 22 41.46
23		154 B.A.C.		0 28 35.31	+ 1.09	33.86	- 5.38		0 29 4.88
24		178 B.A.C.		0 33 27.21	+ 0.24	33.86	- 3.17		0 33 58.14
25		204 B.A.C.		0 37 15.29	+ 0.18	33.86	- 3.29		0 37 46.04
26		78 Piscium		0 59 33.09	+ 0.26	33.86	- 3.36		1 0 3.85
27		ζ Piscium (1st) .		1 5 42.06	+ 0.19	33.86	- 3.37		1 6 12.74
28		3310 Lalande ...		1 40 52.36	+ 0.25	33.85	- 3.60		1 41 22.86
29		* 60° 40'		1 44 36.31	+ 0.26	33.85	- 3.67		1 45 6.75
30		47 Cassiopeiae ...	5	1 50 23.74	+ 0.74	33.85	- 7.23		1 50 51.10
31		16 Arietis		2 2 30.64	+ 0.25	33.85	- 3.71		2 3 1.03
32		67 Ceti		2 9 17.66	+ 0.15	33.85	- 3.59		2 9 48.07
33		66 Andromedæ..		2 17 43.56	+ 0.34	33.85	- 4.41	- 34.07	2 18 13.34
34		σ Ceti		2 24 45.56	+ 0.14	+ 33.85	- 3.63		2 25 15.92

November 10. Light clouds all over the sky.

6 Cloudy.
7 Scarcely visible.

9 Semi-diam. + 70°.80.
31—34 Cloudy.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Nov. 14	79 Ceti.....		2 27 36.50	+ 0.16	+ 33.85	- 3.61		2 28 6.90
2		810 B.A.C.		2 30 48.11	+ 0.20	33.85	- 3.68		2 31 18.48
3		γ Ceti		2 35 20.16	+ 0.19	33.85	- 3.64	- 33.85	2 35 50.56
4	19	R Cassiopeiæ		23 50 36.34	+ 0.27	32.73	- 2.64	32.53	23 51 6.70
5		87 Pegasi.....		0 1 7.11	+ 0.19	32.72	- 2.94		0 1 37.08
6		39 Piscium		0 9 52.01	+ 0.19	32.72	- 3.01		0 10 21.91
7		225 B.A.C.		0 41 14.93	+ 0.78	32.72	- 6.30		0 41 42.13
8		270 B.A.C.	6	0 50 21.84	+ 0.17	32.71	- 3.29	32.91	0 50 51.43
9	24	ε Piscium.....		23 32 4.46	+ 0.17	30.89	- 2.86	30.98	23 32 32.66
10		ω ³ Aquarii		23 34 47.34	+ 0.16	30.89	- 3.11		23 35 15.28
11		8321 B.A.C.	5	23 49 17.58	+ 0.25	30.89	- 1.67		23 49 47.05
12		1850 Gr. S.P.	3	23 56 57.48	+ 0.04	30.88	- 2.98	* 30.88	23 57 25.42
13		6 Ceti.....		0 3 28.26	+ 0.16	30.88	- 3.25		0 3 56.05
14		46 B.A.C.		0 8 46.56	+ 0.20	30.88	- 2.78		0 9 14.86
15		42 Piscium		0 14 30.77	+ 0.18	30.88	- 3.02		0 14 58.81
16		67 Gr.	3	0 22 6.92	+ 0.31	30.87	- 5.27	* 30.91	0 22 32.83
17		167 B.A.C.		0 31 14.06	+ 0.17	30.87	- 3.18		0 31 41.92
18		201 B.A.C.		0 36 38.37	+ 0.20	30.87	- 3.22		0 37 6.22
19		φ ² Ceti.....		0 42 27.26	+ 0.16	30.87	- 3.35		0 42 54.94
20		270 B.A.C.		0 50 23.86	+ 0.17	30.86	- 3.26	30.86	0 50 51.63
21		290 B.A.C.		0 55 20.39	+ 0.19	30.86	- 3.48		0 55 47.96
22		ψ ² Piscium		0 59 46.30	+ 0.18	30.86	- 3.29		1 0 14.05
23		358 B.A.C.		1 4 36.51	+ 0.19	30.86	- 3.34		1 5 4.22
24		393 B.A.C.	5	1 10 49.44	+ 0.22	30.86	- 5.79		1 11 14.73
25		ω Andromedæ...		1 18 36.26	+ 0.18	30.85	- 3.62	30.76	1 19 3.67
26	26	ι Ceti.....		23 50 29.99	+ 0.22	29.69	- 3.18		23 50 56.72
27		α Andromedæ...		0 0 29.99	+ 0.29	29.69	- 2.81	29.58	0 0 57.16
28		φ ¹ Ceti.....		0 36 29.03	+ 0.23	29.67	- 3.31		0 36 55.62
29		62 Piscium		0 40 22.67	+ 0.25	29.67	- 3.19		0 40 49.40
30		υ ¹ Cassiopeiæ ...		0 46 2.14	+ 0.36	29.67	- 3.39		0 46 28.78
31		ε Piscium.....	6	0 55 1.67	+ 0.26	29.66	- 3.27	- 29.73	0 55 28.32
32		β Andromedæ...		1 1 14.27	+ 0.30	+ 29.66	- 3.33		1 1 40.90

November 26. A cloudy night with short intervals of starlight.

1 Cloudy.

4 Very red, and certainly not less than the (6.0) magnitude.

8 Cloudy after this observation.

23—25 Cloudy.

26—28 In thick fog.

LAMP WEST.									
Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Nov. 26	37 Ceti.....		1 6 42.39	+ 0.23	+ 29.66	- 3.40		1 7 8.88
2		ψ Cassiopeie		1 15 23.50	+ 0.42	29.65	- 4.37		1 15 49.20
3		μ Piscium		1 22 12.17	+ 0.25	29.65	- 3.41	- 29.69	1 22 38.66
4		508 B.A.C.		1 32 20.49	+ 0.36	29.65	- 4.16		1 32 46.34
5		τ Ceti.....		1 36 56.44	+ 0.22	29.65	- 3.72	29.75	1 37 22.59
6		3310 Lalande ...		1 40 56.41	+ 0.28	29.64	- 3.59		1 41 22.74
7		α Trianguli		1 44 26.93	+ 0.29	29.64	- 3.64		1 44 53.22
8		* 4° 6'.....S.P.	5	2 0 0.17	- 0.68	29.63	+ 13.31	* 29.52	2 0 42.43
9		* 3° 35'.....	2	2 20 15.35	+ 1.34	29.63	- 23.17	* 31.23	2 20 23.15
10		595 Gr.....	5	2 58 48.22	+ 0.95	29.61	- 18.84	* 29.88	2 58 59.94
11		95 Ceti		3 10 34.34	+ 0.24	29.60	- 3.75		3 11 0.43
12		α Persei		3 13 38.83	+ 0.33	29.60	- 4.96	29.50	3 14 3.80
13		σ Tauri		3 16 38.24	+ 0.25	29.60	- 3.85		3 17 4.24
14	27	1850 Gr. ....S.P.	3	23 57 1.31	- 1.01	29.04	- 3.94	* 29.06	23 57 25.40
15		γ Pegasi.....		0 5 23.17	+ 0.24	29.03	- 2.93	28.98	0 5 49.51
16		9 Ceti		0 15 3.16	+ 0.19	29.03	- 3.23		0 15 29.15
17		67 Gr.	3	0 22 7.15	+ 1.23	29.03	- 4.64	* 29.13	0 22 32.77
18		154 B.A.C.	3	0 28 39.41	+ 0.77	29.02	- 4.11		0 29 5.09
19		201 B.A.C.		0 36 39.99	+ 0.34	29.02	- 3.16		0 37 6.19
20		ϕ^2 Ceti.....		0 42 29.13	+ 0.19	29.02	- 3.32		0 42 55.02
21		36 Andromedæ .		0 46 49.83	+ 0.25	29.01	- 3.18		0 47 15.91
22		296 B.A.C.		0 55 59.49	+ 0.16	29.01	- 3.60		0 56 25.06
23		29 Ceti		1 0 8.33	+ 0.21	29.01	- 3.31		1 0 34.24
24		378 B.A.C.		1 8 3.54	+ 0.56	29.01	- 5.25		1 8 27.86
25		418 B.A.C.		1 16 17.51	+ 0.17	29.00	- 3.57		1 16 43.11
26		444 B.A.C.		1 21 37.00	+ 0.40	29.00	- 4.52		1 22 1.88
27		Weisse i. 486 ...		1 27 59.84	+ 0.23	29.00	- 3.44		1 28 25.63
28		514 B.A.C.		1 33 5.83	+ 0.26	28.99	- 3.55		1 33 31.53
29		τ Ceti.....		1 36 57.01	+ 0.18	28.99	- 3.54	- 29.04	1 37 22.64
30		3285 Lalande ...		1 40 14.34	+ 0.25	28.99	- 3.54		1 40 40.04
31		3405 Lalande ...		1 43 43.81	+ 0.25	28.99	- 3.60		1 44 9.45
32		409 Gr.....	5	1 48 33.71	+ 0.51	28.99	- 6.29		1 48 56.92
33		112 Piscium		1 52 14.24	+ 0.21	28.99	- 3.54		1 52 39.90
34		* 41° 3'.....		1 56 47.70	+ 0.29	+ 28.98	- 3.93		1 57 13.04
9—10 Cloudy.					34 * (3.7) 3' np. 6 ^a .				

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Nov. 27	700 B.A.C.		2 8 34.87	+ 0.34	+ 28.98	- 4.63		2 8 59.56
2		742 B.A.C.		2 16 31.99	+ 0.16	28.97	- 3.72		2 16 57.40
3		A. Z. Ixiii. 24 ...		2 23 6.94	+ 0.42	28.97	- 5.94		2 23 30.39
4		810 B.A.C.		2 30 53.10	+ 0.23	28.97	- 3.72		2 31 18.58
5		γ Ceti		2 35 25.06	+ 0.21	28.97	- 3.68	- 28.97	2 35 50.56
6		τ^1 Eridani		2 37 57.83	+ 0.18	28.96	- 3.67		2 38 23.30
7		892 B.A.C.		2 44 45.63	+ 0.24	28.96	- 3.84	28.91	2 45 10.99
8		η Eridani		2 48 58.36	+ 0.20	28.96	- 3.68		2 49 23.84
9		ρ^1 Eridani		2 53 39.99	+ 0.20	28.96	- 3.69		2 54 5.46
10		1089 B.A.C.		3 22 45.63	+ 0.31	28.95	- 4.93	28.99	3 23 9.96
11	28	785 B.A.C.		2 26 31.89	+ 0.35	28.33	- 4.58		2 26 55.99
12		810 B.A.C.		2 30 53.60	+ 0.22	28.33	- 3.73		2 31 18.42
13		γ Ceti		2 35 25.70	+ 0.21	28.33	- 3.68	28.33	2 35 50.56
14		16 Persci		2 41 5.87	+ 0.30	28.33	- 4.22		2 41 30.28
15		ρ^3 Arietis		2 47 53.91	+ 0.24	28.32	- 3.87		2 48 18.60
16		932 B.A.C.		2 51 51.44	+ 0.29	28.32	- 4.24		2 52 15.81
17		ρ^2 Eridani		2 55 13.53	+ 0.18	28.32	- 3.70		2 55 38.33
18		κ Persei		2 59 24.04	+ 0.32	28.32	- 4.59	28.21	2 59 48.09
19		1001 B.A.C.	5	3 6 59.62	+ 0.45	28.32	- 6.35		3 7 22.04
20		60 Arietis		3 11 29.41	+ 0.17	28.32	- 4.11		3 11 53.79
21		α Tauri		3 16 39.50	+ 0.22	28.32	- 3.87		3 17 4.17
22		6 Tauri ι		3 24 23.94	+ 0.22	28.31	- 3.89		3 24 48.58
23		δ Persei		3 32 17.57	+ 0.33	28.31	- 5.00	28.41	3 32 41.21
24		18 Tauri		3 36 10.10	+ 0.28	28.31	- 4.19		3 36 34.50
25	29	8374 B.A.C.		23 58 43.17	+ 0.28	28.14	- 2.74		23 59 8.85
26		γ Pegasi		0 5 23.90	+ 0.23	28.14	- 2.91	28.24	0 5 49.36
27		θ Andromedæ ...		0 9 8.99	+ 0.31	28.14	- 2.78		0 9 34.66
28		86 B.A.C.	5	0 17 33.85	+ 0.98	28.14	- 3.00		0 17 59.97
29		* 6° 7'	3	0 25 58.54	+ 1.57	28.14	- 4.12		0 26 24.13
30		* 6° 2' (1st)	3	0 26 59.44	+ 1.60	28.14	- 4.25	* 27.69	0 27 24.93
31		* 6° 2' (2d)	3	0 27 20.21	+ 1.60	28.14	- 4.27	* 28.21	0 27 45.68
32		201 B.A.C.		0 36 40.69	+ 0.42	28.13	- 3.12		0 37 6.12
33		ν^1 Cassiopeiæ ...		0 46 3.90	+ 0.44	+ 28.13	- 3.33		0 46 29.14
22—23 Cloudy.									

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.			h.	m.	s.
	1856.			h. m. s.	s.	s.	s.	s.			
1	Nov. 29	341 B.A.C.		1 2 8.46	+ 0.24	+ 28.13	- 3.28		1 2 33.55		
2		* 5' 20' .....S.P.	5	1 18 4.20	- 1.36	28.12	+ 5.00	- * 27.88	1 18 35.96		
3		504 B.A.C.		1 31 39.64	+ 0.10	28.12	- 3.60		1 32 4.26		
4		* 73' 36'		1 35 34.83	+ 0.24	28.12	- 3.49		1 35 59.70		
5		γ Arietis (south)		1 45 13.33	+ 0.25	28.12	- 3.55		1 45 38.15		
6		51 Cassiopeiae ...		1 52 38.19	+ 0.72	28.11	- 4.82		1 53 2.20		
7		α Arietis		1 58 39.16	+ 0.26	28.11	- 3.68	28.06	1 59 3.85		
8		669 B.A.C.		2 2 54.04	+ 0.25	28.11	- 3.68		2 3 18.72		
9		20 Arietis		2 7 7.19	+ 0.27	28.11	- 3.75		2 7 31.82		
10		708 B.A.C.		2 10 8.10	+ 0.19	28.11	- 3.61		2 10 32.79		
11		* 3' 35'	3	2 20 16.43	+ 2.56	28.11	- 22.83	* 28.59	2 20 24.27		
12		ν Arietis	5	2 30 14.23	+ 0.25	28.11	- 3.84		2 30 38.75		
13		36 Arietis		2 35 52.69	+ 0.24	28.10	- 3.82		2 36 17.21		
14		τ^2 Eridani		2 44 5.99	+ 0.12	28.10	- 3.69		2 44 30.52		
15		908 B.A.C.	5	2 49 25.74	+ 1.13	28.10	- 4.94		2 49 50.03		
16		2210 Gr. ....S.P.	3	2 57 27.47	- 2.23	28.10	+ 23.78	* 28.81	2 58 17.12		
17		66 Arietis		3 19 37.56	+ 0.25	28.09	- 4.09	28.03	3 20 1.81		
18		ϵ Eridani		3 25 44.40	+ 0.15	28.09	- 3.74	28.11	3 26 8.90		
19	Dec. 1	11 Ceti		0 22 7.87	+ 0.24	26.99	- 3.11		0 22 31.99		
20		137 B.A.C.		0 26 18.83	+ 0.28	26.99	- 3.05		0 26 43.05		
21		161 B.A.C.		0 29 41.50	+ 0.26	26.99	- 3.13		0 30 5.62		
22		204 B.A.C.		0 37 21.87	+ 0.24	26.98	- 3.18		0 37 45.91		
23		221 B.A.C.		0 40 25.81	+ 0.25	26.98	- 3.17		0 40 49.87		
24		2 Urs. Min.	3	0 49 28.15	+ 2.22	26.98	- 7.31	* 26.62	0 49 50.04		
25		290 B.A.C.		0 55 24.01	+ 0.46	26.98	- 3.37		0 55 48.08		
26		32 Cassiopeiae ...		1 1 57.64	+ 0.58	26.97	- 3.76		1 2 21.43		
27		37 Ceti		1 6 44.93	+ 0.22	26.97	- 3.37		1 7 8.75		
28		393 B.A.C.	3	1 10 52.33	+ 0.98	26.97	- 5.40		1 11 14.88		
29		410 B.A.C.		1 15 1.37	+ 0.26	26.97	- 3.35		1 15 25.25		
30		ω Andromedae...		1 18 39.60	+ 0.41	26.97	- 3.56	- 27.13	1 19 3.42		
31		π Piscium		1 29 4.33	+ 0.28	26.96	- 3.43		1 29 28.14		
32		3095 Lalande ...		1 33 20.10	+ 0.30	26.96	- 3.48		1 33 43.88		
33		535 B.A.C.	5	1 36 59.78	+ 0.57	26.96	- 4.45		1 37 22.86		
34		612 B.A.C.		1 52 2.34	+ 0.26	+ 26.95	- 3.54		1 52 26.01		

3 Faint.

19—20 Faint and hazy.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit re- duced to the Mean of the Wires.	Corrections for		Reduc- tion to Mean R.A.	Clock Error by Observa- tion.	Mean R.A. of Stars and Geo- centric R.A. of Planets' Centres.		
					Instrum.	Clock.					
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	Dec. 1	* 4° 6' S.P.	3	2 0 5.00	- 1.89	+ 26.95	+ 12.56	- * 26.65	2 0 42.62		
2		66 Ceti (2d)		2 5 2.74	+ 0.23	26.95	- 3.57		2 5 26.35		
3		4249 Lalande ...		2 9 24.06	+ 0.23	26.95	- 3.47		2 9 47.77		
4		741 B.A.C.		2 16 25.59	+ 0.28	26.94	- 3.66		2 16 49.15		
5		σ Ceti		2 24 52.36	+ 0.20	26.94	- 3.64		2 25 15.86		
6		784 B.A.C.	3	2 27 3.17	+ 1.20	26.94	- 10.73		2 27 20.58		
7		84 Ceti		2 33 28.07	+ 0.24	26.94	- 3.67		2 33 51.58		
8		39 Arietis		2 38 57.19	+ 0.35	26.93	- 4.01		2 39 20.46		
9		τ^2 Eridani		2 44 7.27	+ 0.17	26.93	- 3.68		2 44 30.69		
10		ρ^3 Arietis		2 47 55.43	+ 0.30	26.93	- 3.88		2 48 18.78		
11		α Ceti		2 54 21.84	+ 0.26	26.93	- 3.76	27.03	2 54 45.27		
12		ι Persei		2 58 19.40	+ 0.44	26.93	- 4.82	26.79	2 58 41.95		
13		12 Eridani	3	3 5 34.13	+ 0.14	26.92	- 3.72		3 5 57.47		
14		ζ Eridani	3	8 27.16	+ 0.22	26.92	- 3.73	26.87	3 8 50.57		
15		60 Arietis	3	11 30.77	+ 0.33	26.92	- 4.13		3 11 53.89		
16		6247 Lalande ...	3	15 23.07	+ 0.30	26.92	- 3.98	26.95	3 15 46.31		
17		66 Arietis	3	19 38.74	+ 0.31	26.92	- 4.10	26.80	3 20 1.87		
18		6 Tauri ι	3	24 25.53	+ 0.27	26.92	- 3.91		3 24 48.81		
19	13	21 Eridani	3	31 40.09	- 0.02	18.40	- 3.81	18.40	3 31 54.66		
20		19 Tauri	3	36 24.34	+ 0.08	18.40	- 4.27	18.46	3 36 38.55		
21		27 Tauri	3	40 22.20	+ 0.08	18.40	- 4.28		3 40 36.40		
22		43 Persei A	3	45 42.06	+ 0.21	18.40	- 5.39	18.34	3 45 55.28		
23		* 2° 42'	2	5 24 7.40	+ 3.31	18.35	- 54.03	* 18.70	5 23 35.03		
24		* 5° 16' S.P.	4	5 36 10.08	- 1.64	18.34	+ 24.09	* 18.70	5 36 50.87		
25		2 Lynceis	6	6 43.89	+ 0.27	18.33	- 7.29		6 6 55.20		
26	15	37 Ceti	1	6 54.93	+ 0.23	16.99	- 3.26		1 7 8.89		
27		* 5° 20' S.P.	3	1 18 16.70	- 0.31	16.99	+ 2.03	* 17.30	1 18 35.41		
28		491 B.A.C.	1	30 12.03	+ 0.22	16.99	- 3.37		1 30 25.87		
29		107 Piscium	1	34 27.23	+ 0.27	16.99	- 3.40		1 34 41.09		
30		ϵ Sculptoris	1	38 40.40	+ 0.20	16.99	- 3.48		1 38 54.11		
31		3484 Lalande ...	1	46 20.16	+ 0.27	16.99	- 3.56		1 46 33.86		
32		* 1° 31'	3	1 51 49.12	+ 2.31	16.98	- 32.80	- * 17.22	1 51 35.61		
33		641 B.A.C.	1	57 1.71	+ 0.24	+ 16.98	- 3.50		1 57 15.43		

December 13. Light clouds about during the observations.

2 Companion (8.5) 1' sp. 2^s.
22 Cloudy after this time.

26 * (8.0) 2' np. 2^s.
27 Hazy.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.
					Instrum.	Clock.			
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.
1	Dec. 15	64 Ceti		2 3 31.40	+ 0.25	+ 16.98	- 3.54		2 3 45.09
2		20 Arietis		2 7 18.41	+ 0.28	16.98	- 3.69		2 7 31.98
3		750 B.A.C.		2 18 13.60	+ 0.26	16.98	- 3.63		2 18 27.21
4		789 B.A.C.		2 27 13.49	+ 0.25	16.98	- 3.66		2 27 27.06
5		γ Ceti		2 35 37.00	+ 0.24	16.98	- 3.67	- 16.99	2 35 50.55
6		16 Persei		2 41 17.39	+ 0.30	16.98	- 4.20		2 41 30.47
7		892 B.A.C.		2 44 57.46	+ 0.26	16.97	- 3.84	17.06	2 45 10.85
8		49 Arietis		2 53 12.30	+ 0.28	16.97	- 4.04		2 53 25.51
9		ϵ Persei		2 58 29.40	+ 0.31	16.97	- 4.80	16.90	2 58 41.88
10		12 Eridani		3 5 43.89	+ 0.20	16.97	- 3.67		3 5 57.39
11		14 Eridani		3 9 23.67	+ 0.22	16.97	- 3.73		3 9 37.13
12		1055 B.A.C.		3 15 59.53	+ 0.28	16.97	- 4.11		3 16 12.67
13		1073 B.A.C.		3 20 4.49	+ 0.20	16.97	- 3.70		3 20 17.96
14		6 Tauri ϵ		3 24 35.40	+ 0.25	16.97	- 3.95		3 24 48.67
15		1247 B.A.C.	5	3 55 18.72	+ 0.70	16.96	- 19.57		3 55 16.81
16		1286 B.A.C.		4 4 3.40	+ 0.36	16.96	- 6.71		4 4 14.01
17		57 Tauri		4 11 38.34	+ 0.26	16.96	- 4.21		4 11 51.35
18		63 Tauri		4 14 56.63	+ 0.27	16.96	- 4.28		4 15 9.58
19		R Tauri		4 20 11.57	+ 0.26	16.96	- 4.16		4 20 24.63
20		σ^2 Tauri		4 30 49.66	+ 0.26	16.96	- 4.31	16.94	4 31 2.57
21	16	38 Cassiopeiae A		1 20 21.67	+ 0.52	16.95	- 4.01		1 20 35.13
22		42 Cassiopeiae ...		1 31 37.20	+ 0.53	16.95	- 4.36		1 31 50.32
23		540 B.A.C.		1 38 45.13	+ 0.32	16.95	- 3.65	17.06	1 38 58.75
24		ζ Ceti		1 44 7.63	+ 0.16	16.95	- 3.42		1 44 21.32
25		47 Cassiopeiae ...	5	1 50 39.66	+ 0.71	16.95	- 6.04		1 50 51.28
26		β Trianguli		2 0 45.91	+ 0.29	16.95	- 3.73		2 0 59.42
27		669 B.A.C.		2 3 5.33	+ 0.24	16.95	- 3.61		2 3 18.91
28		4249 Lalande ...		2 9 34.00	+ 0.17	16.95	- 3.53		2 9 47.59
29		0 Ceti		2 11 50.96	+ 0.19	16.95	- 3.55	16.84	2 12 4.55
30		77 Ceti		2 27 22.94	+ 0.17	16.95	- 3.59		2 27 36.47
31		μ Arietis		2 34 2.01	+ 0.25	16.95	- 3.81		2 34 15.40
32		16 Persei		2 41 17.39	+ 0.28	16.95	- 4.20		2 41 30.42
33		892 B.A.C.		2 44 57.67	+ 0.23	16.95	- 3.84	- 16.88	2 45 11.01
34		η Eridani	5	2 49 10.49	+ 0.17	+ 16.95	- 3.66		2 49 23.95

December 16. Very hazy; bad definition.

1 Very unsteady.

13-14 Cloudy.

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.					
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	Dec. 16	595 Gr.	3	2 58 59.45	+ 1.43	+ 16.95	- 17.65	* 16.98	2 59	0.18	
2		2213 Gr. ....S.P.	3	3 6 10.87	- 1.02	16.95	+ 13.31	* 16.94	3 6	40.11	
3		1205 B.A.C.		3 44 36.86	+ 0.18	16.95	- 3.90		3 44	50.09	
4		τ^9 Eridani		3 53 34.04	+ 0.13	16.95	- 3.73		3 53	47.39	
5		1247 B.A.C.	3	3 55 18.67	+ 1.18	16.95	- 19.55		3 55	17.25	
6		81 Tauri		4 22 13.34	+ 0.23	16.95	- 4.29		4 22	26.23	
7		1417 B.A.C.		4 27 3.47	+ 0.25	16.95	- 4.40		4 27	16.27	
8		σ^2 Tauri		4 30 49.61	+ 0.23	16.95	- 4.31	17.02	4 31	2.48	
9		1450 B.A.C.		4 33 54.40	+ 0.13	16.95	- 3.75		4 34	7.73	
10		μ Eridani		4 38 5.11	+ 0.19	16.95	- 3.98	16.96	4 38	18.27	
11		58 Eridani		4 40 55.21	+ 0.15	16.95	- 3.82		4 41	8.49	
12	17	393 B.A.C.	4	1 11 1.63	+ 0.76	16.98	- 4.27		1 11	15.10	
13		* 5° 20' .....S.P.	3	1 18 18.70	- 1.62	16.98	+ 1.61	* 17.03	1 18	35.67	
14		509 B.A.C.		1 32 41.77	+ 0.29	16.98	- 3.87		1 32	55.17	
15		535 B.A.C.	5	1 37 9.52	+ 0.35	16.98	- 4.09		1 37	22.76	
16		α Trianguli		1 44 39.29	+ 0.11	16.98	- 3.51		1 44	52.87	
17		47 Cassiopeiæ ...	5	1 50 39.72	+ 0.68	16.98	- 5.96		1 50	51.42	
18		10 Arietis		1 55 15.96	+ 0.09	16.98	- 3.58		1 55	29.45	
19		α Arietis		1 58 50.37	+ 0.09	16.98	- 3.60	16.94	1 59	3.84	
20		700 B.A.C.	2	2 8 46.71	+ 0.26	16.98	- 4.41		2 8	59.54	
21		* 3° 35' .....S.P.	2	2 20 25.04	+ 2.51	16.98	- 19.82	* 17.02	2 20	24.71	
22		39 Arietis	5	2 39 7.44	+ 0.11	16.98	- 3.98		2 39	20.55	
23		ρ Persei		2 55 45.03	+ 0.15	16.98	- 4.34	16.92	2 55	57.82	
24		κ Persei		2 59 35.31	+ 0.18	16.98	- 4.59	17.08	2 59	47.88	
25	27	γ Androm. (2d)		1 54 58.23	+ 0.40	10.57	- 3.65	10.38	1 55	5.55	
26		58 Andromedæ .		1 59 41.26	+ 0.38	10.56	- 3.66		1 59	48.54	
27		66 Ceti (1st)	2	2 5 18.07	+ 0.25	10.56	- 3.44		2 5	25.44	
28		725 B.A.C.	2	2 12 54.56	+ 0.48	10.56	- 4.31		2 13	1.29	
29		11 Trianguli		2 18 49.30	+ 0.36	10.55	- 3.77		2 18	56.44	
30		795 B.A.C.	5	2 28 31.96	+ 0.69	10.55	- 5.88		2 28	37.32	
31		θ Persei		2 34 16.51	+ 0.43	10.54	- 4.34	10.58	2 34	23.14	
32		595 Gr.	5	2 59 4.59	+ 1.72	10.53	- 16.38	* 10.28	2 59	0.46	
33		66 Arietis	3	3 19 54.93	+ 0.32	+ 10.52	- 4.13	- 10.63	3 20	1.64	

December 17. Cloudy and bad definition.

27. The stars very unsteady and ill-defined.

17 Cloudy.

28 * (3.0) 2' nf. 12".

LAMP WEST.

Ref. No.	Date.	Star.	No. of Wires.	Observed Transit reduced to the Mean of the Wires.	Corrections for		Reduction to Mean R.A.	Clock Error by Observation.	Mean R.A. of Stars and Geocentric R.A. of Planets' Centres.		
					Instrum.	Clock.					
	1856.			h. m. s.	s.	s.	s.	s.	h. m. s.		
1	Dec. 27	τ^5 Eridani		3 27 18.83	+ 0.19	+ 10.52	- 3.66		3 27 25.88		
2		1127 B.A.C.		3 32 22.04	+ 0.61	10.51	- 6.91		3 32 26.25		
3		η Tauri		3 38 49.19	+ 0.33	10.51	- 4.28	- 10.62	3 38 55.75		
4		28 Tauri		3 40 31.06	+ 0.33	10.51	- 4.29	10.41	3 40 37.61		
5		* 4° 42' .....S.P.	5	3 49 36.49	- 1.44	10.50	+ 19.22	* 10.33	3 50 4.77		
6		89 Tauri		4 29 48.61	+ 0.30	10.48	- 4.36		4 29 55.03		
7		4 Camelopardi ..		4 35 56.87	+ 0.48	10.48	- 6.50		4 36 1.33		
8		π^2 Orionis		4 42 39.50	+ 0.28	10.48	- 4.25		4 42 46.01		
9		ϵ Aurigæ		4 51 33.33	+ 0.40	10.47	- 5.55	10.49	4 51 38.65		
10		β Eridani		5 0 39.70	+ 0.25	10.47	- 4.03		5 0 46.39		
11		111 Tauri		5 15 55.19	+ 0.31	10.46	- 4.57		5 16 1.39		
12		1708 B.A.C.		5 20 15.71	+ 0.23	10.46	- 3.95		5 20 22.45		
13	29	λ Tauri		3 52 37.56	+ 0.10	8.90	- 4.12	8.85	3 52 42.44		
14		49 Persæ		3 58 40.53	+ 0.23	8.90	- 4.83		3 58 44.83		
15		48 Tauri		4 7 31.24	+ 0.12	8.90	- 4.25		4 7 36.01		
16		58 Tauri		4 12 21.84	+ 0.12	8.89	- 4.26		4 12 26.59		
17		κ^2 Tauri		4 16 46.04	+ 0.16	8.89	- 4.45		4 16 50.64		
18		83 Tauri		4 22 26.43	+ 0.11	8.89	- 4.28		4 22 31.15		
19		Aldebaran		4 27 35.13	+ 0.12	8.89	- 4.37	8.78	4 27 39.77		
20		1446 B.A.C.		4 32 37.51	- 0.02	8.88	- 3.86		4 32 42.51		
21		μ Eridani		4 38 13.21	+ 0.04	8.88	- 4.02	9.05	4 38 18.11		
22		1496 B.A.C.	5	4 44 8.71	+ 0.88	8.88	- 10.78		4 44 7.69		
23		1522 B.A.C.	5	4 48 15.52	+ 0.61	8.87	- 8.30		4 48 16.70		
24		1542 B.A.C.		4 52 19.34	+ 0.12	8.87	- 4.41		4 52 23.92		
25		1 Leporis		4 56 35.43	- 0.06	8.87	- 3.79		4 56 40.45		
26		* 5° 6' .....S.P.	3	5 6 37.86	- 2.51	8.86	+ 23.60	* 9.33	5 7 7.81		
27		* 2° 42'	4	5 23 15.73	+ 4.95	8.86	- 54.68	* 9.38	5 22 34.86		
28	31	δ Persæ		3 32 38.69	+ 0.24	7.46	- 5.02	7.40	3 32 41.37		
29		1155 B.A.C.		3 37 15.64	+ 0.13	7.46	- 4.22		3 37 19.01		
30		η Tauri	5	3 38 52.50	+ 0.13	7.46	- 4.27	7.50	3 38 55.82		
31		28 Tauri		3 40 34.19	+ 0.13	7.46	- 4.29	- 7.48	3 40 37.49		
32		* 4° 42' .....S.P.	3	3 49 39.85	- 1.87	+ 7.45	+ 18.65		3 50 4.08		

LIST OF STARS

USED IN 1856,

FOR FINDING THE CLOCK AND MERIDIAN ERRORS,

SHOWING THEIR ADOPTED MEAN RIGHT ASCENSIONS AND APPROXIMATE NORTH
POLAR DISTANCES.

No.	Star.	Mean R.A. 1856.	Approximate N.P.D.	No.	Star.	Mean R.A. 1856.	Approximate N.P.D.
		h. m. s.	° '			h. m. s.	° '
1	α Andromedæ.....	0 0 57.05	61 40	31	θ Persei	2 34 23.18	41 23
2	γ Pegasi.....	0 5 49.46	75 34	32	γ Ceti	2 35 50.56	87 22
3	67 Gr.	0 22 32.87	4 26	33	892 B.A.C.....	2 45 10.94	74 6
4	12 Ceti	0 22 41.48	94 45	34	α Ceti	2 54 45.37	86 29
5	*	0 27 24.48	6 2	35	ρ Persei	2 55 57.76	51 43
6	*	0 27 45.75	6 2	36	ι Persei	2 58 41.81	40 56
7	β Ceti	0 36 21.57	108 44	37	595 Gr.....	2 59 0.21	5 36
8	2 Urs. Min.....	0 49 49.68	4 31	38	κ Persei	2 59 47.98	45 41
9	270 B.A.C.....	0 50 51.63	83 53	39	ζ Eridani.....	3 8 50.52	99 21
10	ϵ Piseium	0 55 28.39	82 51	40	α Persei	3 14 3.70	40 39
11	80 Piseium e	1 0 57.39	85 4	41	6247 Lalande	3 15 46.34	73 48
12	*	1 4 11.99	3 50	42	642 Gr.....	3 19 45.66	3 49
13	352 B.A.C.....	1 4 14.89	45 26	43	66 Arietis	3 20 1.75	67 42
14	Polaris.....	1 6 48.45	1 25	44	1089 B.A.C.	3 23 10.00	42 33
15	397 B.A.C.....	1 11 57.27	87 25	45	ϵ Eridani	3 26 8.92	99 57
16	θ^1 Ceti.....	1 16 49.61	98 53	46	21 Eridani	3 31 54.66	96 5
17	ω Andromedæ.....	1 19 3.58	45 18	47	δ Persei	3 32 41.31	42 41
18	μ Piseium	1 22 38.70	84 34	48	19 Tauri.....	3 36 38.61	65 59
19	51 Andromedæ	1 29 10.37	42 6	49	η Tauri	3 38 55.86	66 21
20	τ Andromedæ	1 32 5.74	50 9	50	28 Tauri.....	3 40 37.51	66 18
21	τ Ceti.....	1 37 22.69	106 39	51	43 Persei A.....	3 45 55.22	39 44
22	540 B.A.C.....	1 38 58.86	44 29	52	1229 B.A.C.	3 49 45.40	104 1
23	β Arietis.....	1 46 41.55	69 51	53	γ^1 Eridani	3 51 18.77	103 55
24	*	1 51 35.85	1 31	54	λ Tauri	3 52 42.39	77 55
25	γ Andromedæ (2d)	1 55 5.36	48 22	55	37 Tauri A ¹	3 56 11.39	68 19
26	α Arietis	1 59 3.80	67 13	56	δ^2 Tauri	4 15 47.87	72 54
27	θ Arietis	2 10 7.47	70 46	57	Weisse iv. 329	4 16 27.88	80 57
28	\circ Ceti.....	2 12 4.44	93 38	58	Aldebaran	4 27 39.66	73 47
29	66 Andromedæ	2 18 13.56	40 2	59	*	4 30 29.79	3 56
30	*	2 20 24.75	3 35	60	σ^2 Tauri	4 31 2.55	74 22

No.	Star.	Mean R.A. 1856.			Approximate N.P.D.	No.	Star.	Mean R.A. 1856.			Approximate N.P.D.
		h.	m.	s.				h.	m.	s.	
61	μ Eridani	4	38	18.28	93 31	101	ν^3 Cancri	8	22	59.35	65 26
62	π^1 Orionis	4	46	58.32	80 5	102	*	8	25	20.18	5 35
63	ϵ Aurigæ	4	51	38.67	46 24	103	S Cancri	8	35	42.26	70 27
64	*	4	55	23.92	4 28	104	ϵ Hydrie	8	39	8.95	83 3
65	η Orionis	4	56	20.68	74 48	105	ϵ Urs. Maj.	8	49	19.77	41 24
66	η Aurigæ	5	5	47.72	43 45	106	η Urs. Maj.	8	51	16.69	47 39
67	γ Gr.	5	16	17.74	4 54	107	κ Urs. Maj.	8	53	46.58	42 17
68	β Tauri	5	17	11.54	61 31	108	γ Cancri	9	0	18.42	62 47
69	*	5	22	35.38	2 42	109	*	9	1	13.26	2 31
70	ζ Tauri	5	29	2.47	68 57	110	θ Hydrie	9	6	52.24	87 5
71	α Orionis	5	47	22.67	82 37	111	*	9	10	11.45	2 15
72	η Gr.	5	48	28.91	3 14	112	α Lynceis	9	12	16.32	55 0
73	χ^3 Orionis	5	54	55.93	70 19	113	3183 B.A.C.	9	12	47.71	64 13
74	ν Orionis	5	59	21.10	75 13	114	3206 B.A.C.	9	16	38.70	69 36
75	κ Aurigæ	6	6	12.13	60 27	115	α Hydrie	9	20	30.67	98 2
76	μ Geminorum	6	14	14.95	67 25	116	β Hydrie	9	27	21.53	95 17
77	γ Geminorum	6	29	23.57	73 29	117	*	9	30	14.13	2 45
78	δ Cephei	6	31	37.43	2 45	118	ϵ Hydrie	9	32	30.09	90 29
79	Sirius	6	38	48.18	106 31	119	ϵ Leonis	9	37	40.29	65 34
80	η Can. Maj.	6	49	22.97	109 57	120	δ Leonis	9	38	37.71	77 32
81	ϵ Can. Maj.	6	52	57.97	118 47	121	μ Leonis	9	44	33.95	63 19
82	η Gr.	7	4	57.35	0 58	122	*	9	48	8.92	2 1
83	14038 Lalande	7	6	56.92	67 47	123	α Leo Min.	9	52	41.98	57 22
84	δ Geminorum	7	11	31.20	67 45	124	β Sextantis	9	56	40.74	86 6
85	2470 B.A.C.	7	21	5.48	101 16	125	α Leo Min.	9	58	55.59	54 3
86	*	7	29	7.80	3 14	126	Regulus	10	0	42.03	77 20
87	Procyon	7	31	45.80	84 25	127	λ Hydrie	10	3	34.17	101 39
88	Pollux	7	36	29.95	61 38	128	*	10	8	46.26	3 13
89	*	7	37	30.05	3 54	129	γ Leonis (2d)	10	12	2.21	69 26
90	*	7	50	55.87	5 34	130	*	10	13	56.12	4 52
91	2703 B.A.C.	7	58	4.15	67 8	131	ν Hydrie	10	42	31.25	105 27
92	η Argus	8	1	24.82	113 54	132	β^3 Hydrie	10	46	27.16	109 22
93	δ Puppis	8	3	59.35	103 23	133	α Leo Min.	10	46	57.31	55 12
94	R Cancri	8	8	37.28	77 52	134	η Urs. Maj.	10	51	23.37	48 48
95	β Cancri	8	8	42.30	80 22	135	*	10	53	14.07	1 35
96	χ Cancri	8	11	18.72	62 19	136	3779 B.A.C.	10	55	52.54	89 59
97	2788 B.A.C.	8	11	56.74	68 48	137	η Leo Min.	10	57	34.06	64 1
98	η Gr.	8	12	59.33	4 27	138	χ Leonis	10	57	35.30	81 53
99	2810 B.A.C.	8	16	33.50	72 21	139	δ Leonis	11	6	26.76	68 41
100	η Cancri	8	20	35.05	75 19	140	θ Leonis	11	6	40.95	73 47

No.	Star.	Mean R.A. 1856.			Approximate N.P.D.	No.	Star.	Mean R.A. 1856.			Approximate N.P.D.
		h.	m.	s.				h.	m.	s.	
141	73 Leonis <i>n</i>	11	8	19.77	75 54	181	Arcturus	14	9	5.72	70 4
142	δ Hyd. & Crat.	11	12	8.67	104 0	182	4731 B.A.C.	14	9	18.00	70 25
143	σ Leonis	11	13	42.67	83 11	183	λ Virginis	14	11	19.53	102 42
144	λ Crateris	11	16	14.00	107 59	184	θ Boötis	14	20	17.69	37 29
145	83 Leonis (2d).....	11	19	29.05	86 12	185	24 Boötis <i>g</i>	14	23	37.24	39 31
146	89 Leonis	11	26	59.75	86 8	186	*	14	32	12.81	1 56
147	ι Crateris.....	11	31	21.54	102 25	187	33 Boötis	14	33	28.74	44 58
148	ξ Virginis	11	37	51.67	80 56	188	ε Boötis	14	38	41.94	62 19
149	ν Virginis	11	38	27.51	82 40	189	8 Libræ	14	42	43.69	105 24
150	β Virginis	11	43	11.81	87 25	190	α ² Libræ	14	42	55.24	105 26
151	*	11	46	37.10	51 14	191	ξ ² Libræ	14	48	57.71	100 50
152	*	11	46	56.08	51 9	192	2210 Gr.	14	58	17.83	3 28
153	*	11	51	21.46	2 12	193	2213 Gr.	15	6	40.10	5 30
154	*	11	51	41.47	2 12	194	β Libræ	15	9	15.86	98 51
155	4043 B.A.C.	11	51	41.47	88 40	195	ζ ¹ Libræ	15	20	8 60	106 13
156	1850 Gr.	11	57	25.42	3 37	196	α Cor. Bor.	15	28	35.57	62 48
157	*	12	6	41.48	2 16	197	5177 B.A.C.	15	32	39.63	42 44
158	Weisse xii. 276	12	17	46.47	100 49	198	α Serpentis	15	37	10.72	83 7
159	β Can. Ven.	12	26	53.79	47 52	199	θ Libræ	15	45	38.03	106 18
160	10 Can. Ven.	12	38	10.28	49 56	200	χ Herculis	15	47	41.86	47 9
161	11 Can. Ven.	12	42	3.77	40 45	201	*	15	50	4.60	4 42
162	1937 Gr.	12	47	59.79	5 48	202	*	16	6	24.12	4 18
163	1940 Gr.	12	48	7.45	5 48	203	δ Ophiuchi	16	6	48.20	93 19
164	12 Can. Ven.	12	49	17.23	50 54	204	σ Scorpii.....	16	12	26.51	115 15
165	4393 B.A.C.	13	0	59.92	61 40	205	γ Herculis	16	15	34.18	70 30
166	θ Virginis	13	2	29.99	94 46	206	Antares.....	16	20	35.12	116 6
167	18 Can. Ven.	13	4	56.06	48 26	207	ζ Herculis	16	35	51.48	58 8
168	2006 Gr.	13	11	59.80	1 35	208	η Herculis	16	37	57.66	50 48
169	4473 B.A.C.	13	15	2.71	95 27	209	κ Ophiuchi	16	50	51.22	80 24
170	Spica.....	13	17	36.75	100 25	210	ε Herculis	16	54	46.90	58 51
171	*	13	18	35.72	5 20	211	η Ophiuchi	17	2	7.33	105 33
172	2007 Gr.	13	20	37.92	4 30	212	*	17	7	8.28	5 6
173	24 Can. Ven.	13	28	33.93	40 15	213	α Herculis	17	8	5.00	75 27
174	84 Virginis o.....	13	35	49.54	85 44	214	ξ Ophiuchi	17	12	22.72	110 57
175	τ Boötis	13	40	25.42	71 49	215	69 Herculis <i>e</i>	17	12	42.42	52 33
176	η Urs. Maj.....	13	41	51.76	39 58	216	5853 B.A.C.	17	13	9.09	40 9
177	η Boötis	13	47	49.77	70 53	217	θ Ophiuchi ..	17	13	10.10	114 51
178	*	14	0	42.32	4 6	218	*	17	19	52.45	0 42
179	κ Virginis.....	14	5	13.31	99 36	219	α Ophiuchi	17	28	15.06	77 20
180	26118 Lalande	14	8	19.69	69 26	220	5994 B.A.C.	17	35	48.57	65 21

No.	Star.	Mean R.A. 1856.			Approximate N.P.D.	No.	Star.	Mean R.A. 1856.			Approximate N.P.D.
		h.	m.	s.				h.	m.	s.	
221	β Ophiuchi	17	36	21.64	85 22	261	*	19	43	49.44	4 13
222	*	17	36	51.23	5 16	262	6806 B.A.C.	19	44	21.77	51 39
223	μ Herculis	17	40	49.50	62 11	263	*	19	45	35.04	4 14
224	6030 B.A.C.	17	42	32.62	70 42	264	β Aquilæ.....	19	48	14.39	83 57
225	30 Draconis.....	17	45	38.01	39 11	265	62 Sagittarii c.....	19	53	47.95	118 6
226	ν Ophiuchi	17	51	6.02	99 45	266	α^2 Capricorni	20	10	3.68	102 59
227	γ Draconis.....	17	53	15.87	38 30	267	*	20	11	27.83	4 32
228	70 Ophiuchi (1st) ..	17	58	10.72	87 28	268	6986 B.A.C.	20	11	47.99	50 5
229	70 Ophiuchi (2d) ..	17	58	11.21	87 28	269	*	20	16	28.22	1 26
230	6132 B.A.C.	17	59	59.94	115 29	270	γ Cygni	20	17	3.65	50 12
231	100 Herc. (south) ..	18	2	1.33	63 15	271	ρ Capricorni	20	20	38.62	108 17
232	μ^1 Sagittarii.....	18	5	9.16	111 6	272	*	20	21	26.94	4 40
233	6199 B.A.C.	18	9	47.24	115 39	273	*	20	23	39.28	1 34
234	η Serpentis	18	13	51.51	92 56	274	*	20	29	3.74	5 22
235	λ Sagittarii	18	19	5.07	115 30	275	3260 Gr.	20	29	51.25	5 55
236	*	18	23	44.33	2 56	276	*	20	30	48.80	5 20
237	ι Aquilæ	18	27	22.24	98 20	277	ν Capricorni.....	20	31	51.00	108 39
238	6349 B.A.C.	18	30	32.46	51 13	278	24 Cephei (Hev.)..	20	33	53.20	1 19
239	*	18	31	57.29	51 36	279	*	20	35	40.74	4 12
240	α Lyrae	18	32	3.78	51 21	280	α Cygni	20	36	31.40	45 14
241	ϕ Sagittarii.....	18	36	39.40	117 8	281	51 Cygni.....	20	37	46.26	40 11
242	β Lyrae.....	18	44	45.82	56 48	282	ϵ Cygni	20	40	23.14	56 34
243	θ Serpentis (1st) ..	18	49	3.60	85 59	283	*	20	40	57.12	2 31
244	6480 B.A.C.	18	51	37.71	57 17	284	*	20	56	19.44	4 53
245	ζ Aquilæ	18	58	47.50	76 21	285	7320 B.A.C.	20	57	29.72	51 55
246	*	19	1	17.86	3 29	286	41030 Lalande	21	2	28.25	52 3
247	17 Lyrae	19	1	58.81	57 43	287	ζ Cygni.....	21	6	48.53	60 22
248	ρ^2 Sagittarii	19	13	26.88	108 34	288	ν Cygni.....	21	11	59.88	55 42
249	χ^1 Sagittarii.....	19	16	30.44	114 47	289	ϵ Capricorni.....	21	14	13.45	107 27
250	δ Aquilæ	19	18	14.19	87 10	290	ζ Capricorni	21	18	26.47	113 2
251	8 Vulpeculæ.....	19	22	56.51	65 32	291	36 Capricorni b	21	20	30.26	112 26
252	ϵ^2 Cygni	19	26	4.44	38 35	292	71 Cygni g	21	24	8.15	44 6
253	51 Sagittarii h^1	19	27	16.81	115 2	293	7485 B.A.C.	21	25	42.56	106 50
254	52 Sagittarii h^2	19	27	56.42	115 12	294	ξ Aquarii.....	21	30	4.94	98 30
255	6723 B.A.C.	19	30	36.11	39 4	295	ϵ Pegasi	21	37	6.80	80 47
256	θ Cygni	19	32	34.72	40 7	296	7608 B.A.C.	21	43	41.67	109 18
257	6744 B.A.C.	19	38	1.95	39 49	297	7650 B.A.C.	21	50	40.14	96 6
258	16 Cygni c	19	38	59.26	39 48	298	Weisse xxi. 1240 ..	21	53	19.23	103 43
259	γ Aquilæ.....	19	39	24.82	79 44	299	α Aquarii.....	21	58	23.18	91 1
260	α Aquilæ.....	19	43	45.41	81 31	300	ϵ Aquarii	21	58	39.36	104 34

No.	Star.	Mean R.A. 1856.	Approximate N.P.D.	No.	Star.	Mean R.A. 1856.	Approximate N.P.D.
		h. m. s.	° ' "			h. m. s.	° ' "
301	7705 B.A.C.	22 0 12.31	45 41	321	5 Andromedæ	23 1 13.54	41 29
302	γ Aquarii.....	22 14 13.05	92 7	322	6 Andromedæ	23 3 48.43	47 14
303	β Lacertæ	22 17 54.19	38 29	323	94 Aquarii (1st) ...	23 11 31.99	104 15
304	σ Aquarii	22 23 1.38	101 25	324	8147 B.A.C.	23 15 35.47	70 14
305	5 Lacertæ	22 23 32.15	43 2	325	*	23 24 11.03	4 23
306	3824 Gr.	22 24 38.11	4 30	326	14 Andromedæ	23 24 13.05	51 33
307	α Lacertæ	22 25 21.88	40 27	327	λ Andromedæ.....	23 30 31.51	44 19
308	*	22 29 8.55	5 41	328	ι Piscium.....	23 32 32.75	85 9
309	8 Lacertæ (1st)	22 29 28.12	51 7	329	λ Piscium.....	23 34 41.93	89 1
310	8 Lacertæ (2d)	22 29 28.22	51 7	330	20 Piscium	23 40 32.36	93 34
311	*	22 30 38.51	2 39	331	8289 B.A.C.	23 43 11.81	39 11
312	11 Lacertæ	22 34 12.33	46 28	332	R Cassiopeiæ	23 51 6.50	39 25
313	ζ Pegasi	22 34 16.84	79 55	333	27 Piscium	23 51 18.16	94 21
314	45 Pegasi.....	22 38 27.93	71 23	334	ω Piscium	23 51 55.20	83 56
315	τ ² Aquarii	22 41 57.93	104 21				
316	μ Pegasi	22 43 3.30	66 9				
317	15 Lacertæ	22 45 32.88	47 27				
318	δ Aquarii.....	22 47 0.38	106 35				
319	β Piscium	22 56 32.97	86 57				
320	α Pegasi	22 57 35.40	75 34				



ELEMENTS OF REDUCTION

OF THE

TRANSIT OBSERVATIONS.

Date.	Position of Lamp.	Level Error.		Collimation Error.		Meridian Error.		Determining Stars for Meridian Error.
		Observed.	Adopted.	Observed.	Adopted.	Observed.	Adopted.	
1856.		s.	s.	s.	s.	s.	s.	
Jan. 10	E	+ 0.156	+ 0.16	.....	} — 0.03	— 0.339	— 0.34	1004 Gr. & * 5° 16'
12	E	+ 0.126	+ 0.13	.....		— 0.373	— 0.37	* 2° 42' & * 0° 42'
14	E	+ 0.195	+ 0.20	.....		— 0.277	— 0.28	1004 Gr. & * 0° 42'
15	E	+ 0.126	+ 0.13	.....		— 0.355	— 0.35	944 Gr. & 0° 42'
18	E	.....	+ 0.12	.....		.....	— 0.33	.....
25	E	+ 0.091	+ 0.09	.....		— 0.258	— 0.26	1004 Gr. & * 5° 16'
28	E	+ 0.141	+ 0.14	.....		— 0.169	— 0.17	* 3° 56' & * 5° 16'
Feb. 9	E	+ 0.080	+ 0.08	.....	} — 0.03	— 0.232	— 0.23	* 3° 14' & * 4° 13'; * 4° 14'
12	E	.....	+ 0.09	.....		.....	— 0.17	.....
14	E	+ 0.098	+ 0.10	.....		— 0.131	— 0.13	* 5° 34' & * 4° 32'
15	E	+ 0.114	+ 0.11	.....		— 0.153	— 0.15	* 5° 34' & * 5° 20'
16	E	+ 0.084	+ 0.08	.....		— 0.048	— 0.05	* 5° 35' & * 4° 12'
29	E	.....	+ 0.15	.....		.....	— 0.17	.....
Mch 7	E	+ 0.188	+ 0.19	.....	} — 0.03	— 0.235	— 0.24	* 2° 31' & * 2° 31'
8	E	+ 0.123	+ 0.12	.....		— 0.349	— 0.35	* 5° 35' & * 4° 32'
11	E	+ 0.144	+ 0.14	.....		— 0.273	— 0.27	* 5° 34' & * 5° 22'; * 5° 20'
13	E	+ 0.180	+ 0.18	.....		— 0.288	— 0.29	* 2° 31' & * 4° 32'
14	E	+ 0.163	+ 0.16	.....		— 0.369	— 0.37	* 2° 31' & 24 Cephei (Hev.)
24	E	.....	+ 0.13	.....		.....	— 0.35	.....
26	E	+ 0.121	+ 0.12	.....		— 0.342	— 0.34	* 3° 13' & * 5° 41'
27	E	+ 0.170	+ 0.17	.....		— 0.265	} — 0.25	{ * 2° 31' & * 1° 26'
						— 0.242		{ * 2° 31' & * 1° 34'
29	E	+ 0.159	+ 0.16	.....		— 0.241	} — 0.25	{ * 2° 15' & * 1° 34'
						— 0.249		{ * 1° 35' & * 2° 39'
31	E	+ 0.109	+ 0.11	.....		— 0.412	— 0.41	* 2° 31' & 3260 Gr.

Date.	Position of Lamp.	Level Error.		Collimation Error.		Meridian Error.		Determining Stars for Meridian Error.
		Observed.	Adopted.	Observed.	Adopted.	Observed.	Adopted.	
1856.		s.	s.	s.	s.	s.	s.	
April 1	E	+ 0.084	+ 0.08	.....	} — 0.003	— 0.271	— 0.27	* 2° 45' & * 2° 39'
4	E	+ 0.120	+ 0.12	.....		— 0.201	— 0.20	* 2° 15' & * 2° 39'
5	E	+ 0.141	+ 0.14	.....		— 0.133	— 0.13	* 1° 35' & * 2° 39'
12	E	+ 0.103	+ 0.10	.....		— 0.162	— 0.16	* 1° 35' & * 2° 39'
16	E	+ 0.128	+ 0.13	.....		— 0.254	— 0.25	1937 Gr. & 67 Gr.
18	E	.....	+ 0.15	.....		.....	— 0.14	.....
19	E	+ 0.169	+ 0.17	.....		— 0.088	— 0.09	1937 Gr.; 1940 Gr. & * 3° 50'
21	E	+ 0.073	+ 0.07	.....		— 0.446	— 0.45	1937 Gr.; 1940 Gr. & 2 U. Min.
23	E	.....	+ 0.09	.....		.....	— 0.32	.....
24	E	+ 0.093	+ 0.09	.....		— 0.260	— 0.26	1937 Gr.; 1940 Gr. & * 3° 50'
May 3	E	.....	+ 0.13	.....	} — 0.004	.....	— 0.28	.....
9	E	+ 0.155	+ 0.15	.....		— 0.289	— 0.29	1937 Gr. & Polaris
10	E	.....	+ 0.13	.....		.....	— 0.28	.....
13	E	+ 0.059	+ 0.06	.....		— 0.221	— 0.22	2006 Gr. & Polaris
19	E	+ 0.093	+ 0.09	.....		— 0.225	— 0.23	2006 Gr. & Polaris
20	E	+ 0.104	+ 0.10	.....		— 0.176	— 0.18	2006 Gr. & Polaris
22	E	+ 0.068	+ 0.07	.....		— 0.241	— 0.24	2007 Gr. & Polaris
24	E	.....	+ 0.07	.....		.....	— 0.24	.....
27	E	.....	.....	— 0.004		.....	.....	.....
28	W	+ 0.116	+ 0.12	— 0.022		+ 0.112 + 0.054	+ 0.08	{ 2210 Gr. & * 3° 35' ... 2213 Gr. & 642 Gr.
June 2	W	.....	+ 0.11	.....	} — 0.002	.....	+ 0.09	.....
3	W	+ 0.107	+ 0.11	.....		+ 0.096	+ 0.10	* 1° 56' & * 3° 35'
5	W	.....	+ 0.12	.....		.....	+ 0.05	.....
10	W	+ 0.148	+ 0.15	.....		— 0.084	— 0.08	* 4° 18' & 642 Gr.
14	W	.....	+ 0.15	.....		.....	— 0.13	.....
16	W	.....	+ 0.15	.....		.....	— 0.16	.....
17	W	+ 0.153	+ 0.15	.....		— 0.172	— 0.17	2213 Gr. & 642 Gr.
20	W	.....	+ 0.13	.....		.....	— 0.08	.....
23	W	.....	+ 0.10	.....		.....	0.00	.....
25	W	+ 0.088	+ 0.09	.....		+ 0.064	+ 0.06	* 5° 6' & * 4° 28'
27	W	+ 0.106	+ 0.10	.....	}	— 0.116	— 0.12	* 4° 42' & * 3° 56'
28	W	+ 0.073	+ 0.07	.....		— 0.086	— 0.09	* 4° 18' & * 3° 56'
July 1	W	+ 0.140	+ 0.14	.....	}	+ 0.008	+ 0.01	* 5° 6' & * 3° 56'

Date.	Position of Lamp.	Level Error.		Collimation Error.		Meridian Error.		Determining Stars for Meridian Error.
		Observed.	Adopted.	Observed.	Adopted.	Observed.	Adopted.	
1856.		S.	S.	S.	S.	S.	S.	
July 2	W	+ 0.124	+ 0.12	.....	} + 0.02	- 0.104	- 0.10	* 5° 6' & * 3° 56'
5	W	+ 0.116	+ 0.12	.....		.....	- 0.02	.....
8	W	+ 0.132	+ 0.13	.....		+ 0.073	+ 0.07	* 0° 42' & * 4° 28'
9	W	.....	+ 0.13	.....		.....	+ 0.09	.....
10	W	.....	+ 0.13	.....		.....	+ 0.10	.....
14	W	+ 0.136	+ 0.14	.....		+ 0.145	+ 0.15	* 0° 42' & 944 Gr.
15	W	+ 0.151	+ 0.15	.....		+ 0.148	+ 0.15	* 0° 42' & * 4° 28'
16	W	+ 0.148	+ 0.15	.....		+ 0.155	+ 0.16	* 5° 16' & 1004 Gr.
17	W	+ 0.139	+ 0.14	.....		+ 0.070	+ 0.07	* 1° 34' & * 3° 54'
18	W	+ 0.111	+ 0.11	.....		+ 0.094	+ 0.09	* 0° 42' & 51 Cephei
22	W	.....	+ 0.13	.....		.....	+ 0.13	.....
25	W	+ 0.136	+ 0.14	.....		+ 0.157	+ 0.16	* 0° 42' & * 4° 28'
26	W	+ 0.134	+ 0.13	.....		+ 0.005	+ 0.01	* 5° 6' & * 4° 28'
29	W	+ 0.126	+ 0.13	.....		+ 0.062	+ 0.06	* 3° 29' & 1119 Gr.
30	W	+ 0.128	+ 0.13	.....		+ 0.030	+ 0.03	* 5° 16' & * 3° 14'
31	W	.....	+ 0.13	.....		.....	- 0.01	.....
Aug. 1	W	+ 0.130	+ 0.13	.....	} + 0.02	- 0.078	- 0.08	* 5° 16' & 1119 Gr.
2	W	+ 0.118	+ 0.12	.....		- 0.018	- 0.02	* 5° 16' & 5° 34'
4	W	+ 0.109	+ 0.11	.....		- 0.156	- 0.16	* 5° 16' & 1119 Gr.
5	W	+ 0.131	+ 0.13	.....		+ 0.058	+ 0.06	* 5° 16' & 1119 Gr.
6	W	+ 0.124	+ 0.12	.....		+ 0.010	+ 0.01	* 5° 16' & 1418 Gr.
7	W	.....	+ 0.13	.....		.....	+ 0.05	.....
9	W	+ 0.148	+ 0.15	.....		+ 0.116	+ 0.12	* 4° 13'; * 4° 13' & * 3° 14'
11	W	.....	+ 0.14	.....		.....	+ 0.08	.....
12	W	+ 0.135	+ 0.14	.....		+ 0.088	+ 0.09	* 4° 13'; * 4° 13' & 1418 Gr.
13	W	+ 0.146	+ 0.15	.....		+ 0.037	+ 0.04	* 2° 36' & 1119 Gr.
14	W	+ 0.100	+ 0.10	.....		+ 0.079	+ 0.08	* 2° 36' & 1418 Gr.
15	W	.....	+ 0.10	.....		.....	+ 0.07	.....
22	W	+ 0.116	+ 0.12	.....		+ 0.043	+ 0.04	* 4° 13' & 1119 Gr.
29	W	+ 0.094	+ 0.09	.....		+ 0.002	0.00	* 4° 40' & * 3° 14'
Sept. 2	W	+ 0.158	+ 0.16	.....	}	+ 0.044	+ 0.04	* 4° 13' & 1119 Gr.
3	W	+ 0.144	+ 0.14	.....		- 0.021	} - 0.02	* 3° 29' & * 3° 14'
						- 0.026		* 3° 29' & * 2° 1'
4	W	+ 0.100	+ 0.10	.....		- 0.037	- 0.04	24 Cephei (Hav.) & * 5° 34'
5	W	+ 0.151	+ 0.15	.....		- 0.119	- 0.12	* 3° 29' & * 3° 14'

Date.	Position of Lamp.	Level Error.		Collimation Error.		Meridian Error.		Determining Stars for Meridian Errors.
		Observed.	Adopted.	Observed.	Adopted.	Observed.	Adopted.	
1856.		s.	s.	s.	s.	s.	s.	
Sep. 10	W	+ 0.130	+ 0.13	.....	} - 0.02	+ 0.065	+ 0.06	* 4° 13' & * 2° 1'
12	W	.....	+ 0.11	.....		.....	+ 0.03	.....
13	W	+ 0.104	+ 0.10	.....		+ 0.018	+ 0.02	3824 Gr. & * 2° 1'
16	W	+ 0.138	+ 0.14	.....		+ 0.124	+ 0.12	3824 Gr. & * 2° 1'
22	W	.....	+ 0.14	.....		.....	+ 0.12	.....
24	W	+ 0.144	+ 0.14	.....		+ 0.118	+ 0.12	3824 Gr. & ζ Pegasi
29	W	.....	+ 0.17	.....		.....	+ 0.17	.....
30	W	+ 0.170	+ 0.17	.....		+ 0.177	+ 0.18	* 4° 53' & * 2° 31'
Oct. 10	W	.....	+ 0.16	.....		.....	+ 0.05	.....
13	W	.....	+ 0.15	.....		.....	+ 0.01	.....
17	W	.....	+ 0.14	.....		.....	- 0.04	.....
18	W	+ 0.144	+ 0.14	.....		- 0.048	- 0.05	3824 Gr. & * 4° 52'
21	W	+ 0.144	+ 0.14	.....		+ 0.195	+ 0.20	3824 Gr. & * 2° 45'
24	W	+ 0.170	+ 0.17	.....		- 0.004	0.00	3824 Gr. & * 3° 13'
25	W	+ 0.234	+ 0.23	.....		+ 0.044	} + 0.12	{ * 4° 23' & * 3° 13'
						+ 0.197		{ * 6° 2' & 1937 Gr.
27	W	+ 0.233	+ 0.23	.....		+ 0.048	+ 0.05	* 4° 23' & * 3° 13'
28	W	+ 0.273	+ 0.27	.....		+ 0.038	+ 0.04	67 Gr. & 1937 Gr.
30	W	+ 0.146	+ 0.15	.....		- 0.123	- 0.12	* 4° 23' & * 1° 35'
31	W	.....	+ 0.15	.....		.....	- 0.08	.....
Nov. 4	W	+ 0.156	+ 0.16	.....	} - 0.02	+ 0.114	+ 0.11	* 4° 23' & γ Aquarii
5	W	+ 0.230	+ 0.23	.....		+ 0.135	} + 0.12	{ * 4° 23' & * 2° 12'
						+ 0.097		{ * 4° 23' & * 2° 16'
6	W	+ 0.219	+ 0.22	.....		- 0.025	- 0.02	* 4° 23' & 1937 Gr.
8	W	.....	+ 0.22	.....		.....	+ 0.02	.....
10	W	+ 0.214	+ 0.21	.....		+ 0.066	+ 0.07	2 Urs. Min. & * 5° 20'
14	W	+ 0.238	+ 0.24	.....		+ 0.061	+ 0.06	* 4° 23' & 1850 Gr.
19	W	.....	+ 0.19	.....		.....	+ 0.09	.....
24	W	+ 0.141	+ 0.14	.....		+ 0.128	+ 0.13	67 Gr. & 1850 Gr.
26	W	+ 0.232	+ 0.23	.....		+ 0.112	} + 0.15	{ * 3° 35' & * 4° 6'
						+ 0.193		{ 595 Gr. & * 4° 6'
27	W	+ 0.218	+ 0.22	.....		+ 0.116	+ 0.12	67 Gr. & 1850 Gr.
28	W	.....	+ 0.24	.....		.....	+ 0.09	.....
29	W	+ 0.263	+ 0.26	.....		+ 0.055	} + 0.06	{ * 6° 2' & * 5° 20'
						+ 0.071		{ * 3° 35' & 2210 Gr.

Date.	Position of Lamp.	Level Error.		Collimation Error.		Meridian Error.		Determining Stars for Meridian Error.
		Observed.	Adopted.	Observed.	Adopted.	Observed.	Adopted.	
1856.		s.	s.	s.	s.	s.	s.	
Dec. 1	W	+ 0.301	+ 0.30	.....	} - 0.02	+ 0.101	+ 0.10	2 Urs. Min. & * 4° 6'
13	W	+ 0.153	+ 0.15	.....		- 0.090	- 0.09	* 2° 42' & * 5° 16'
15	W	+ 0.218	+ 0.22	.....		+ 0.163	+ 0.16	* 1° 31' & * 5° 20'
16	W	+ 0.239	+ 0.24	.....		+ 0.077	+ 0.08	595 Gr. & 2213 Gr.....
17	W	+ 0.159	+ 0.16	.....		- 0.079	- 0.08	* 3° 35' & * 5° 20'
27	W	+ 0.305	+ 0.30	.....		+ 0.124	+ 0.12	595 Gr. & * 4° 42'
29	W	+ 0.236	+ 0.24	.....		- 0.102	- 0.10	* 2° 42' & * 5° 6'
31	W	.....	+ 0.19	.....		.....	- 0.05	.....

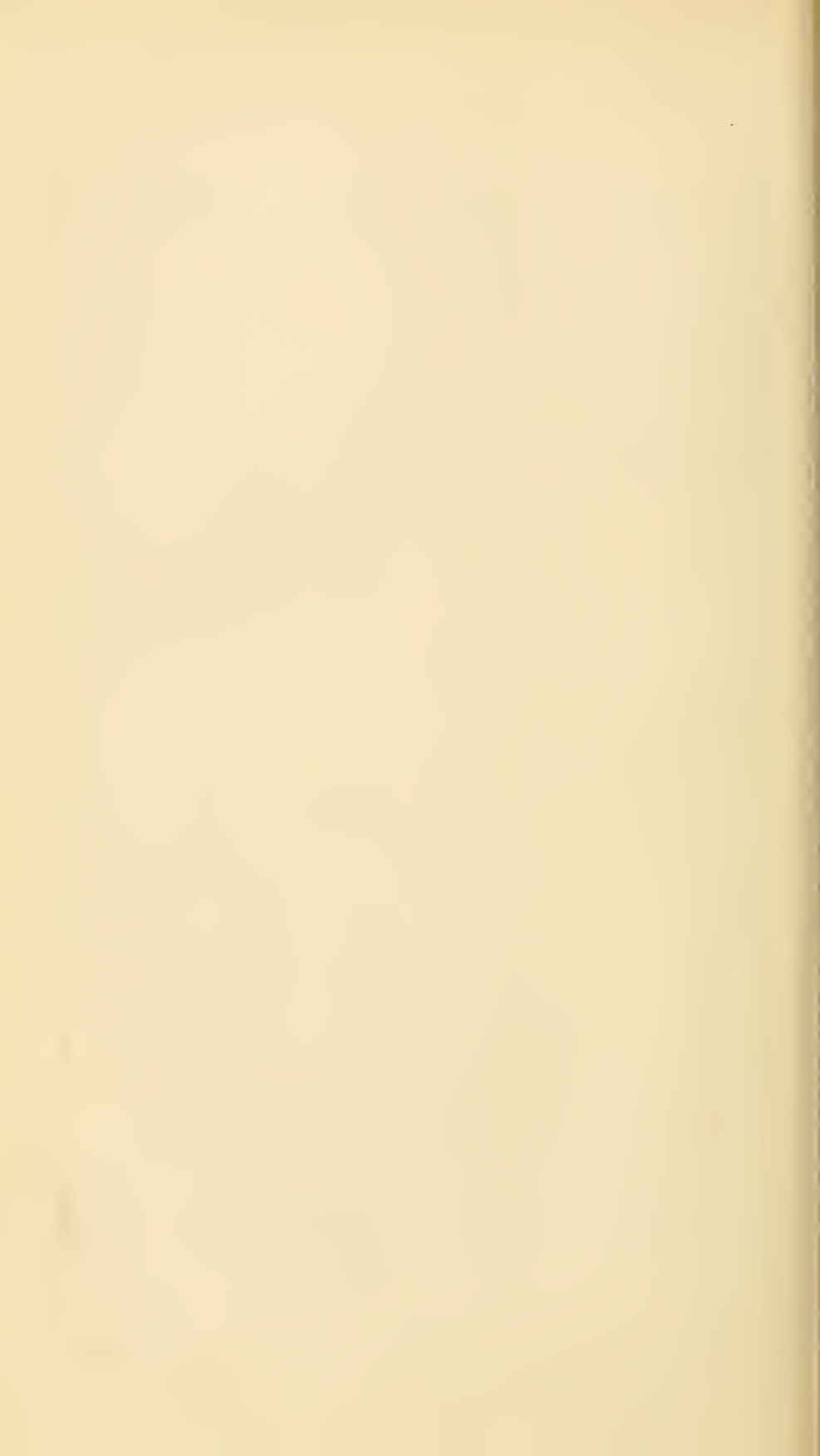


TABLE OF CLOCK ERRORS

USED IN THE REDUCTION OF THE TRANSIT OBSERVATIONS.

Date.		Sideral Time.	Clock Error.	Mean daily rate from the last Ob- servations.	Adopted daily rate.	Date.		Sideral Time.	Clock Error.	Mean daily rate from the last Ob- servations.	Adopted daily rate.
1856.		h. m.	s.	s.	s.	1856.		h. m.	s.	s.	s.
Jan.	10	3 45	- 20.92	- 0.14	- 0.21	April	12	10 56	- 23.43	+ 0.16	+ 0.05
	12	4 24	- 21.22	- 0.15	- 0.15		16	11 6	- 23.46	- 0.01	+ 0.02
	14	4 9	- 21.51	- 0.15	- 0.24		18	10 54	- 23.33	+ 0.07	+ 0.02
	15	4 1	- 21.79	- 0.28	- 0.25		19	13 34	- 23.33	0.00	- 0.10
	18	5 57	- 22.35	- 0.18	- 0.16		21	12 17	- 23.92	- 0.30	- 0.21
	25	4 39	- 23.22	- 0.13	- 0.10		23	11 3	- 24.15	- 0.12	- 0.01
	28	4 56	- 23.46	- 0.08	- 0.09		24	12 9	- 24.11	+ 0.04	+ 0.04
Feb.	9	7 4	- 25.04	- 0.13	- 0.23	May	3	12 27	- 23.39	+ 0.08	+ 0.12
	12	6 10	- 25.77	- 0.25	- 0.20		9	13 16	- 22.48	+ 0.15	+ 0.15
	14	6 17	- 26.01	- 0.12	- 0.21		10	14 30	- 22.35	+ 0.12	+ 0.08
	15	8 22	- 26.28	- 0.25	- 0.23		13	13 14	- 22.40	- 0.05	+ 0.02
	16	7 31	- 26.48	- 0.21	- 0.20		19	13 44	- 21.50	+ 0.15	+ 0.08
	29	7 6	- 27.61	- 0.09	- 0.08		20	14 27	- 21.43	+ 0.07	+ 0.02
March	7	9 16	- 28.19	- 0.08	- 0.05		22	14 49	- 21.57	- 0.07	+ 0.05
	8	8 11	- 28.24	- 0.05	- 0.01		24	13 11	- 21.24	+ 0.17	+ 0.16
	11	9 16	- 27.96	+ 0.09	+ 0.19		28	14 19	- 20.72	+ 0.13	+ 0.09
	13	9 16	- 27.46	+ 0.25	+ 0.30	June	2	15 24	- 20.59	+ 0.03	- 0.05
	14	9 27	- 27.13	+ 0.33	+ 0.31		3	15 4	- 20.66	- 0.07	- 0.11
	24	7 57	- 26.08	+ 0.11	+ 0.15		5	14 25	- 21.03	- 0.19	- 0.22
	26	11 6	- 25.75	+ 0.16	+ 0.31		10	15 19	- 22.52	- 0.30	- 0.13
	27	9 14	- 25.40	+ 0.38	+ 0.32		14	16 27	- 22.50	0.00	- 0.11
	29	10 34	- 25.01	+ 0.19	+ 0.11		16	17 16	- 22.83	- 0.16	- 0.25
	31	9 56	- 24.96	+ 0.03	+ 0.02		17	16 23	- 23.12	- 0.30	- 0.23
April	1	11 9	- 24.94	+ 0.02	+ 0.04		20	17 36	- 23.23	- 0.04	- 0.09
	4	10 17	- 24.63	+ 0.10	+ 0.08		23	17 14	- 23.61	- 0.13	- 0.20
	5	11 17	- 24.56	+ 0.07	+ 0.08		25	16 23	- 24.08	- 0.24	- 0.35
							27	16 39	- 24.97	- 0.45	- 0.39

TABLE OF CLOCK ERRORS.

Date.	Sidereal Time.	Clock Error.	Mean daily rate from the last Observations.	Adopted daily rate.	Date.	Sidereal Time.	Clock Error.	Mean daily rate from the last Observations.	Adopted daily rate.
1856.	h. m.	s.	s.	s.	1856.	h. m.	s.	s.	s.
June 28	16 37	- 25.33	- 0.36	- 0.35	Sept. 2	21 6	- 41.44	- 0.14	- 0.19
					3	20 6	- 41.63	- 0.20	- 0.20
July 1	16 47	- 26.31	- 0.33	- 0.31	4	20 53	- 41.85	- 0.21	- 0.19
2	17 21	- 26.58	- 0.27	- 0.27	5	21 9	- 42.02	- 0.17	- 0.16
5	16 9	- 27.40	- 0.28	- 0.22	10	22 14	- 42.67	- 0.13	- 0.19
8	17 46	- 27.85	- 0.15	+ 0.13	12	20 51	- 43.07	- 0.21	- 0.23
9	16 45	- 27.64	+ 0.22	+ 0.06	13	22 24	- 43.32	- 0.24	- 0.23
10	16 52	- 27.74	- 0.10	- 0.12	16	21 27	- 43.90	- 0.20	- 0.14
14	17 22	- 28.45	- 0.18	- 0.16	22	21 37	- 44.05	- 0.03	+ 0.24
15	18 9	- 28.60	- 0.15	- 0.12	24	22 31	- 43.37	+ 0.33	+ 0.30
16	18 58	- 28.68	- 0.08	- 0.26	29	22 21	- 42.24	+ 0.23	+ 0.34
17	18 39	- 29.10	- 0.43	- 0.33	30	22 7	- 41.88	+ 0.36	+ 0.33
18	18 0	- 29.33	- 0.24	- 0.25	Oct. 10	21 59	- 40.73	+ 0.12	+ 0.13
22	18 58	- 30.47	- 0.28	- 0.26	13	22 8	- 40.33	+ 0.13	+ 0.21
25	18 30	- 31.22	- 0.25	- 0.41	17	22 32	- 39.09	+ 0.31	+ 0.07
26	18 12	- 31.68	- 0.46	- 0.43	18	22 34	- 39.08	+ 0.01	+ 0.08
29	18 33	- 32.75	- 0.36	- 0.50	21	23 10	- 38.18	+ 0.30	+ 0.20
30	18 41	- 33.30	- 0.55	- 0.54	24	23 2	- 37.87	+ 0.10	+ 0.28
31	18 59	- 33.83	- 0.53	- 0.54	25	23 50	- 37.52	+ 0.34	+ 0.29
Aug. 1	18 54	- 34.37	- 0.54	- 0.51	27	0 26	- 37.13	+ 0.19	+ 0.40
2	19 13	- 34.85	- 0.48	- 0.51	28	23 59	- 36.64	+ 0.50	+ 0.31
4	19 16	- 35.97	- 0.56	- 0.47	30	23 13	- 36.79	- 0.08	+ 0.38
5	19 11	- 36.39	- 0.42	- 0.38	31	22 13	- 36.20	+ 0.61	+ 0.54
6	19 8	- 36.73	- 0.34	- 0.23	Nov. 4	22 41	- 35.14	+ 0.26	+ 0.40
7	19 31	- 36.85	- 0.12	- 0.18	5	0 21	- 34.68	+ 0.43	+ 0.44
9	20 19	- 37.45	- 0.30	- 0.37	6	23 27	- 34.25	+ 0.45	+ 0.32
11	19 1	- 38.30	- 0.44	- 0.31	8	1 34	- 34.38	+ 0.06	+ 0.05
12	20 9	- 38.55	- 0.24	- 0.35	10	1 31	- 34.30	+ 0.04	+ 0.07
13	18 56	- 38.99	- 0.46	- 0.38	14	0 52	- 33.86	+ 0.14	+ 0.18
14	19 45	- 39.30	- 0.30	- 0.30	19	0 20	- 32.72	+ 0.23	+ 0.30
15	21 32	- 39.63	- 0.31	- 0.28	24	0 34	- 30.87	+ 0.37	+ 0.53
22	19 52	- 39.95	- 0.05	- 0.09	26	1 26	- 29.65	+ 0.60	+ 0.64
29	20 49	- 40.86	- 0.13	- 0.14	27	2 5	- 28.98	+ 0.66	+ 0.65

Date.	Sidereal Time.	Clock Error.	Mean daily rate from the last Observations.	Adopted daily rate.	Date.	Sidereal Time.	Clock Error.	Mean daily rate from the last Observations.	Adopted daily rate.
1856.	h. m.	s.	s.	s.	1856.	h. m.	s.	s.	s.
Nov. 28	3 2	- 28.32	+ 0.64	+ 0.43	Dec. 16	3 9	- 16.95	+ 0.02	0.00
29	2 13	- 28.11	+ 0.22	+ 0.36	17	2 38	- 16.98	- 0.03	+ 0.03
					27	3 20	- 10.52	+ 0.65	+ 0.77
Dec. 1	2 49	- 26.93	+ 0.58	+ 0.60	29	4 20	- 8.89	+ 0.80	+ 0.77
13	3 38	- 18.40	+ 0.71	+ 0.71	31	3 38	- 7.46	+ 0.73	+ 0.64
15	3 13	- 16.97	+ 0.72	+ 0.25					



OBSERVATIONS

WITH THE

MERIDIAN CIRCLE.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Jan. 10	29.45	38.0	32.0	γ Ceti.....	340 53 12.3	- 68.3	- 1.0	52 2.8	87 22 22.0
2		—	37.2	32.3	ϵ Arietis.....	359 0 51.8	- 35.5	- 7.3	0 9.4	69 14 15.4
3		—	36.8	32.2	1001 B.A.C.	43 21 43 6	+ 14.1	- 18.8	21 39.4	24 52 45.4
4		29.46	36.3	32.0	δ Tauri <i>t</i>	347 8 28.6	- 54.9	- 4.2	7 29.4	81 6 55.4
5		29.47	35.2	30.8	δ^1 Tauri R.	244 32 42.4	+ 40.9	+ 7.2	33 31.2	72 47 56.0
6		—	35.0	31.0	Aldebaran.....R.	245 31 47.9	+ 42.4	+ 7.0	32 37.9	73 47 2.7
7		29.48	34.7	—	19 Drac. <i>h</i> ¹ S.P.	92 51 29.1	+ 115.4	- 18.2	53 6.8	24 38 42.0
8		29.49	34.3	31.2	109 Tauri <i>u</i>	0 11 43.7	- 34.0	- 8.2	11 2.0	68 3 22.8
9		29.50	34.4	31.0	δ Orionis.....	337 51 12.0	- 76.4	- 4.3	49 51.7	90 24 33.1
10		29.51	34.0	31.2	χ^1 Orionis R.	241 30 8.9	+ 36.4	+ 7.4	30 52.9	69 45 17.7
11		—	—	31.0	ν Orionis R.	246 57 50.6	+ 44.7	+ 6.5	58 42.7	75 13 7.5
12		—	—	—	.....	51.8				
13		29.52	—	—	μ Geminorum R.	239 9 55.9	+ 33.2	+ 7.1	10 36.4	67 25 1.2
14		—	—	30.8	ξ^2 Can. Maj.	315 26 48.1	- 212.3	- 3.7	23 12.7	112 51 12.1
15		—	—	—	Sirius	321 45 41.4	- 148.1	- 4.3	43 9.3	106 31 15.5
16	11	29.88	36.2	31.0	ι Persei	27 18 18.2	- 2.8	- 15.5	17 59.7	40 56 25.1
17		—	—	—	1001 B.A.C.	43 21 44.9	+ 14.3	- 18.9	21 40.7	24 52 44.1
18		29.89	35.8	—	64 Arietis <i>g</i>	2 27 45.8	- 31.4	- 8.7	27 6.2	65 47 18.6
19		—	—	—	.....	46.3				
20		—	35.0	30.7	δ Eridani.....	328 1 5.3	- 112.8	+ 1.1	59 13.9	100 15 10.9
21		29.90	—	30.9	γ^1 Eridani	324 21 21.6	- 132.4	+ 1.5	19 11.1	103 55 13.7
22		—	34.8	31.2	ω^1 Tauri	357 28 41.6	- 38.4	- 7.7	27 55.3	70 46 29.5
23		—	34.7	32.0	δ^1 Tauri R.	244 32 41.8	+ 41.4	+ 7.2	33 31.0	72 47 55.8
24		—	—	—	Aldebaran R.	245 31 47.8	+ 42.9	+ 7.0	32 38.2	73 47 3.0

January 10. Index Cor. + 0".2; Run + 1".0.

11. Index Cor. + 0".1; Run + 1".0.

- 1 Nearest division.
4 Nearest division.
5 Very unsteady.
12 Division above.

- 16 Nearest division.
19 Division above.
22 Nearest division.
24 Cloudy after this time.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	"	° ' "
1	Jan. 12	30.39	35.3	29.8	976 B.A.C.	358 27 38.8	- 37.7	- 7.2	26 54.9	69 47 29.9
2					.....	40.7				
3			34.6	31.4	δ Eridani	328 1 5.5	- 114.6	+ 1.2	59 12.4	100 15 12.4
4			34.0	30.7	17 Urs. Min. S.P.	82 14 18.9	+ 79.0	- 21.3	15 16.6	14 0 51.8
5		30.40	33.7	30.3	γ Tauri	353 31 51.5	- 45.3	- 6.7	31 0.0	74 43 24.8
6		30.39		30.0	Aldebaran	354 28 15.0	- 43.8	- 7.0	27 23.9	73 47 0.9
7			33.5	29.8	μ Eridani	334 44 37.4	- 88.3	- 2.5	43 6.6	93 31 18.2
8			33.4		11 Orionis R.	246 32 43.1	+ 45.5	+ 6.9	33 36.1	74 48 0.9
9		30.40	33.2	29.9	β Tauri	233 16 3.6	+ 26.4	+ 9.3	16 39.6	61 31 4.4
10				29.8	ζ Orionis	336 14 32.7	- 83.6	- 3.9	13 5.2	92 1 19.6
11			33.0	30.0	α Orionis	345 38 6.4	- 60.0	- 5.4	37 1.7	82 37 23.1
12		30.41	32.8	29.7	ξ ² Can. Maj.	315 26 52.4	- 219.2	- 3.2	23 10.5	112 51 14.3
13				29.2	Sirius	321 45 45.0	- 153.0	- 3.9	43 8.4	106 31 16.4
14		30.42	32.5	29.0	16 Lyræ.....S.P.	111 24 10.8	+ 389.5	- 11.6	30 28.6	43 16 3.8
15			32.2	29.5	Pollux	6 37 10.2	- 26.6	- 4.6	36 39.5	61 37 45.3
16	14	29.92	34.2	26.3	41 Arietis	4 54 55.0	- 28.5	- 8.9	54 17.6	63 20 7.2
17		29.91	33.3	27.0	δ Arietis.....	357 25 56.2	- 38.8	- 6.9	25 10.7	70 49 14.1
18			33.0		κ ¹ Ceti.....	341 5 58.1	- 69.6	- 1.8	4 46.9	87 9 37.9
19			32.4	27.2	6 Tauri t	347 8 29.5	- 56.3	- 4.0	7 28.9	81 6 55.9
20					θ Urs. Min. S.P.	80 23 56.5	+ 73.4	- 22.4	24 47.3	12 10 22.5
21		29.90	32.0	26.2	ζ Urs. Min. S.P.R.	160 0 37.2	- 72.4	+ 22.1	59 47.0	11 45 48.2
22		29.89	31.1	25.0	φ Hereulis S.P.	112 48 14.7	+ 454.9	- 19.1	55 30.1	44 41 5.3
23					19 Urs. Min. S.P.R.	158 0 49.1	- 78.0	+ 21.3	59 52.6	13 45 42.6
24		29.88	30.4	23.8	5560 B.A.C. S.P.	97 4 47.6	+ 143.7	- 20.3	6 51.0	28 52 26.2
25			30.0	24.2	5658 B.A.C. S.P.	102 31 34.3	+ 191.9	- 19.4	34 27.1	34 20 2.3
26					ε Urs. Min. S.P.R.	164 2 19.9	- 63.1	+ 19.4	1 36.7	7 43 58.5
27					δ Orionis	337 51 12.2	- 78.5	- 3.9	49 50.0	90 24 34.8
28		29.89	29.0		ζ Orionis	336 14 31.8	- 83.2	- 3.7	13 4.8	92 1 20.0
29	15	29.79	36.4	38.8	41 Arietis	4 54 53.3	- 27.7	- 8.9	54 16.6	63 20 8.2
30		29.80	37.2	37.8	1001 B.A.C.	43 21 45.3	+ 14.1	- 19.4	21 40.3	24 52 44.5
31			37.4	36.8	ε Eridani	328 19 19.5	- 109.6	+ 1.8	17 31.5	99 56 53.3
32			37.8		22 Eridani	332 35 13.3	- 92.6	+ 0.3	33 40.9	95 40 43.9
33			38.0	37.2	31 Tauri u ²	344 21 24.6	- 60.6	- 3.5	20 20.7	83 54 4.1

January 12. Index Cor. + 0".1; Run + 1".0.

January 14. Index Cor. 0".0; Run + 1".0.

January 15. Index Cor. - 0".1; Run + 1".0.

1 Cloudy after this observation.

2 Division above.

6 Division above.

14 Cloudy during the last observations.

19—20 Nearest division.

21 Very unsteady.

22 Nearest division.

25 Seen with great difficulty; very faint.

28 Clouded over after this observation.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Jan. 15	29.80	38.0	36.8	45 Tauri	343 24 12.4	- 62.7	- 3.6	23 5.8	84 51 19.0
2		29.81	38.2	—	γ Tauri	246 28 12.4	+ 43.8	+ 6.6	29 2.3	74 43 27.1
3		—	—	36.0	σ² Tauri	246 7 0.2	+ 43.4	+ 6.8	7 50.7	74 22 15.5
4		—	—	—	1510 B.A.C.	52 5 4.2	+ 24.1	- 18.5	5 9.7	16 9 15.1
5		—	38.3	37.0	* 4 ^h 53 ^m 0 ^s	323 15 9.6	- 137.2	0.0	12 52.3	105 1 32.5
6		—	38.5	37.5	Capella	24 5 31.0	- 6.1	- 13.1	5 11.8	44 9 13.0
7		—	38.7	38.0	ζ Orionis	336 14 27.9	- 80.6	- 3.6	13 3.5	92 1 21.3
8	19	29.00	46.2	44.8	δ N. L.	6 2 28.9	- 25.2	.....	9 19.6	62 5 5.2
9	23	29.22	47.8	48.5	η Tauri	1 54 29.7	- 30.3	- 8.7	53 50.1	66 20 34.7
10	25	29.22	46.7	41.8	1123 B.A.C.	15 21 35.7	- 15.0	- 12.9	21 7.5	52 53 17.3
11		—	46.4	—	31 Tauri u²	344 21 23.1	- 58.8	- 3.0	20 21.0	83 54 3.8
12		—	46.2	42.0	λ Tauri	350 20 8.2	- 47.7	- 5.1	19 14.8	77 55 10.0
13		29.23	46.0	42.2	δ¹ Tauri	355 27 17.0	- 39.6	- 7.0	26 30.3	72 47 54.5
14		29.24	45.8	41.8	Aldebaran	354 28 10.5	- 41.1	- 6.7	27 22.7	73 47 2.1
15		29.25	45.0	41.3	ζ Draconis...S.P.	92 19 27.7	+ 109.5	- 22.3	20 54.2	24 6 29.4
16		29.26	—	40.8	27 Draconis f S.P.	89 59 33.9	+ 99.7	- 21.2	0 51.7	21 46 26.9
17		—	44.7	40.7	ξ Draconis...S.P.	101 18 9.5	+ 169.0	- 20.0	20 37.5	33 6 12.7
18	30	29.86	37.2	33.0	γ Tauri	353 31 48.3	- 44.3	- 6.2	30 57.4	74 43 27.4
19		29.87	—	33.2	45 Eridani	337 54 20.3	- 76.8	- 1.5	53 1.1	90 21 23.7
20		—	37.0	33.0	μ Eridani	334 44 32.0	- 86.2	- 0.8	43 4.1	93 31 20.7
21		—	36.8	32.8	62 Eridani b	332 51 47.4	- 92.6	- 0.5	50 13.9	95 24 10.9
22		29.88	36.6	32.4	λ Eridani	329 19 38.9	- 106.5	+ 0.2	17 51.7	98 56 33.1
23		—	36.5	32.3	γ Orionis	255 31 35.9	+ 61.1	+ 4.0	32 40.5	83 47 5.3
24		—	36.1	31.5	κ Orionis	328 32 48.1	- 110.2	- 0.4	30 57.3	99 43 27.5
25		—	—	—	.....	49.2				
26		29.89	35.8	30.4	ν Orionis	246 57 48.5	+ 45.4	+ 6.0	58 39.7	75 13 4.5
27		29.90	35.4	30.2	38 Draconis S.P.	89 32 2.1	+ 102.3	- 20.1	33 23.9	21 18 59.1
28		—	35.1	30.8	Sirius	321 45 37.1	- 150.0	- 0.3	43 6.1	106 31 18.7
29		29.91	35.0	—	ε Can. Maj.	309 33 24.4	- 345.3	+ 0.5	27 38.5	118 46 46.3
30		29.90	34.8	30.2	59 Draconis S.P.R.	158 5 43.0	- 76.8	+ 15.5	4 41.0	13 40 54.2

January 19. Index Cor. - 0°.1; Run + 1°.0.
inside of the Microscopes damp.

January 25. Index Cor. - 0°.6; Run + 1°.0.

The readings of the Microscopes uncertain; the
January 23. Index Cor. - 0°.5; Run + 1°.0.
January 30. Index Cor. - 0°.8; Run + 1°.0.

2 Nearest division.
8 Thin clouds. Semi-diam. - 15' 14" 4; Par.
+ 22' 29".9.
9 Clouded over after this single observation.
15-17 Cloudy during the last observations.

17 Nearest division.
24 Great undulation.
25 Division above.
27 Very faint.
29 Nearest division; very unsteady.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Jan. 31	30.05	37.4	33.5	μ Eridani.....	334 44 32.1	- 86.7	- 0.7	43 3.7	93 31 21.1
2		—	—	32.9	62 Eridani <i>b</i>	332 51 46.8	- 93.1	- 0.4	50 12.8	95 24 12.0
3		—	37.8	31.6	104 Tauri <i>m</i>	356 42 2.3	- 39.7	- 7.4	41 14.7	71 33 10.1
4		—	37.4	31.3	ζ Draconis...S.P.	92 19 22.3	+ 114.9	- 23.9	20 52.3	24 6 27.5
5		—	36.9	33.2	δ Orionis.....	337 51 9.6	- 77.4	- 2.3	49 49.2	90 24 35.6
6		—	36.4	33.0	ψ^1 Drae. (1st) S.P.	86 0 13.2	+ 89.2	- 22.3	1 19.2	17 46 54.4
7		—	—	—	ψ^1 Drae. (2d) S.P.	85 59 42.7	+ 89.2	- 22.3	0 48.6	17 46 23.8
8		—	36.3	33.6	γ^1 Orionis....R.	242 32 45.1	+ 38.4	+ 6.9	33 30.1	70 47 54.9
9		—	36.0	33.3	γ Geminorum R.	245 13 44.0	+ 42.6	+ 5.9	14 31.3	73 28 56.1
10		—	—	33.6	Sirius.....	321 45 35.8	- 149.9	- 0.1	43 5.0	106 31 19.8
11		30.06	35.8	33.0	19 Can. Maj.	318 20 3.1	- 180.2	0.0	17 2.0	109 57 22.8
12		—	—	33.4	γ^1 Geminorum R.	245 20 47.8	+ 42 7	+ 5.0	21 34.8	73 35 59.6
13		—	35.6	32.8	ι^2 Cygni.....S.P.	106 45 0.5	+ 251.3	- 15.8	48 55.1	38 34 30.3
14		—	—	32.4	ξ Argus.....	313 48 24.1	- 241.3	- 0.9	44 20.7	114 30 4.1
15	Feb. 1	29.94	37.3	34.0	γ Tauri.....	353 31 47.6	- 44.3	- 6.2	30 56.6	74 43 28.2
16		29.93	37.2	32.2	ρ Tauri.....	352 47 33.5	- 45.6	- 6.1	46 41.1	75 27 43.7
17		—	—	—	.....	34.0				
18		—	36.8	31.1	π^4 Orionis.....	348 10 29.7	- 53.9	- 4.8	9 30.2	80 4 54.6
19		—	—	—	9 Aurigæ.....	29 38 45.0	- 0.4	- 16.8	38 26.7	38 35 58.1
20		29.92	36.2	30.2	109 Tauri <i>n</i>	0 11 44.1	- 34.6	- 8.4	11 0.5	68 3 24.3
21		—	35.8	29.8	ζ Tauri.....R.	240 41 49.5	+ 35.9	+ 8.0	42 32.9	68 56 57.7
22		—	35.2	29.5	η Leporis.....	324 4 47.6	- 134.6	+ 0.6	2 32.7	104 11 52.1
23		—	35.0	30.2	5 Monocerotis...	332 1 59.2	- 96.3	- 1.3	0 21.1	96 14 3.7
24		—	34.8	29.4	ν Geminorum ...	358 33 5.5	- 37.0	- 6.9	32 20.3	69 42 4.5
25	7	29.80	49.0	48.5	δ Draconis...S.P.	90 48 33.7	+ 103.3	- 18.7	49 56.8	22 35 32.0
26	9	29.75	51.1	50.2	ζ Orionis.....	336 14 26.6	- 78.5	- 1.3	13 5.4	92 1 19.4
27		—	—	—	1874 B.A.C.	45 14 1.5	+ 15.7	- 19.8	13 55.9	23 0 28.9
28		29.76	—	—	ν Orionis.....	353 2 8.5	- 43.4	- 5.9	1 18.3	75 13 6.5
29		29.77	—	50.3	6723 B.A.C....S.P.	107 14 51.1	+ 249.1	- 18.2	18 40.7	39 4 15.9
30		—	51.1	—	ϵ Draconis...S.P.	88 19 7.1	+ 93.1	- 16.2	20 22.5	20 5 57.7
31		29.78	51.3	—	σ Urs. Maj.	39 26 4.5	+ 9.6	- 8.1	26 4.9	28 48 19.9

January 31. Index Cor. - 0°.9; Run + 1°.0. February 1. Index Cor. - 0°.9; Run + 1°.0. A foggy night.
 February 7. Index Cor. - 1°.2; Run + 1°.0. Observation not good.
 The Microscopes damp. February 9. Index Cor. - 1°.3; Run + 1°.0. A windy night.

- 9 Nearest division.
 14 Nearest division.
 17 Division above.
 19 Nearest division.
 22 Scarcely visible; behind thick fog.

- 24 Nearest division; very unsteady.
 25 Nearest division; clouded over after this observation.
 27 Nearest division.
 28 Clouded over after this observation.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Deg.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Feb. 12	29.54	51.0	50.6	λ Eridani.....	329 19 35.9	- 101.4	+ 1.3	17 54 2	98 56 30.6
2		—	51.2	50.2	1670 B.A.C.	313 23 20.5	- 235.6	+ 5.1	19 28.2	114 54 56.6
3		—	—	—	21 Camelopardi.	40 6 1.5	+ 10.2	- 19.8	5 50.6	28 8 34.2
4		—	—	—	o Anrigæ	28 0 12.4	- 2.0	- 16.4	59 52.5	40 14 32.3
5		—	51.3	49.9	α Orionis	345 38 0.8	- 55.9	- 3.7	37 0.3	82 37 24.5
6		—	—	—	.....	1.8				
7		29.55	51.2	49.3	36 Draconis S.P.	93 51 58.5	+ 116.3	- 24.1	53 29.6	25 39 4.8
8		—	51.1	—	12 Lynceis.....	37 49 26.2	+ 7.9	- 16.3	49 16.2	30 25 8.6
9		29.56	51.0	—	38 Geminorum e	351 36 40.7	- 45.4	- 4.7	35 49.4	76 38 35.4
10	14	29.58	49.8	45.3	π^2 Orionis	346 54 22.1	- 54.1	- 3.9	53 22.4	81 21 2.4
11		—	—	—	1549 B.A.C.	51 59 31.7	+ 23.4	- 23.4	59 30.0	16 14 54.8
12		—	49.0	45.0	D S. L.	4 11 27.7	- 28.0	.....	50 50.3	63 23 34.5
13		—	—	—	1661 B.A.C.	341 41 9.6	- 64.9	- 2.5	40 0.8	86 34 24.0
14		—	—	—	v Orionis	330 51 20.6	- 96.6	+ 0.7	49 43.4	97 24 41.4
15		—	48.2	45.2	ζ Tauri.....	359 18 12.2	- 34.4	- 8.0	17 27.8	68 56 57.0
16		—	48.8	45.6	S Can. Min.....	346 52 41.0	- 54.1	- 2.7	51 43.3	81 22 41.5
17		—	—	—	.....	42.4				
18		—	—	—	T Geminorum ...	2 20 21.1	- 30.3	- 5.2	19 44.1	65 54 40.7
19		—	—	—	* 7 ^h 55 ^m 20 ^s	63 55 22.5	+ 38.9	- 14.9	55 45.0	4 18 39.8
20		—	48.0	45.2	R Caneri	350 25 12.3	- 47.8	- 2.1	24 20.8	77 50 4.0
21		—	—	45.0	η Caneri	359 10 45.1	- 34.5	- 2.7	10 6.5	69 4 18.3
22		—	47.8	44.2	T Caneri	358 38 55.1	- 35.3	- 1.3	38 17.7	69 36 7.1
23		—	47.7	43.8	31 Cephei ... S.P.	85 19 19.0	+ 83.7	- 0.6	20 40.4	17 6 15.6
24		—	—	—	i Cephei.....S.P.	92 45 56.6	+ 112.3	- 0.3	47 47.2	24 33 22.4
25		29.58	47.3	44.0	* 10 ^h 50 ^m 30 ^s ...	64 32 48.2	+ 39.9	+ 4.1	33 31.2	3 40 53.6
26	15	29.62	49.8	45.8	136 Tauri	5 49 28.5	- 26.0	- 9.9	48 50.8	62 25 34.0
27		—	—	—	D N. L.	6 6 45.0	- 25.6	.....	13 30.1	62 0 54.7
28		—	49.2	—	μ Geminorum ...	0 50 7.3	- 32.3	- 7.8	49 25.5	67 24 59.3
29		—	—	—	γ Geminorum ...	354 46 16.5	- 40.9	- 5.8	45 28.4	73 28 56.4
30		29.63	49.0	45.5	Sirius	321 45 30.1	- 144.1	+ 2.2	43 6.6	106 31 18.2
31	16	29.72	49.5	41.7	1549 B.A.C.	51 59 33.2	+ 23.7	- 23.6	59 31.9	16 14 52.9
32		29.71	49.2	41.8	λ Eridani.....	329 19 35.7	- 103.9	+ 1.5	17 51.9	98 56 32.9

February 12. Index Cor. - 1".5; Run + 1".0.
15. Index Cor. - 1".7; Run + 1".0.

February 14. Index Cor. - 1".6; Run + 1".0.
16. Index Cor. - 1".3; Run + 1".0.

2 Nearest division; tremulous.
6 Division above.
12 Semi-diam. + 15' 25".8; Par. + 24' 26".1.
15 Nearest division; cloudy after this observation.

17 Division above.
24 Flickering.
25 Very faint.
27 Semi-diam. - 15' 15".1; Par. + 22' 27".1.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refrac- tion.	Reduc- tion to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	"	° ' "
1	Feb. 16	29.71	49.0	41.8	τ Orionis	331 15 50.1	- 96.1	+ 0.8	14 13.7	97 0 11.1
2	—	—	48.7	41.7	ν Orionis	330 19 27.7	- 99.8	+ 1.0	17 47.5	97 56 37.3
3	—	—	—	—	ν Orionis	330 51 22.2	- 97.7	+ 0.8	49 44.3	97 24 40.5
4	—	—	47.8	41.4	γ Leporis	315 47 54.1	- 204.2	+ 4.5	44 33.7	112 29 51.1
5	—	—	47.0	41.2	χ^3 Orionis R.	242 3 31.8	+ 36.7	+ 7.3	4 14.2	70 18 39.0
6	—	—	46.8	41.4	μ Geminorum ...	0 50 7.7	- 32.7	+ 7.8	49 25.9	67 24 58.9
7	—	—	—	—	ν Geminorum ...	358 33 7.5	- 35.8	- 7.1	32 22.9	69 42 1.9
8	—	—	46.0	40.8	ϵ Geminorum ...	3 31 14.1	- 29.2	- 8.1	30 35.7	64 43 49.1
9	29.71	46.0	40.5	38.8	38 Geminor. c R.	248 23 21.4	+ 46.5	+ 4.6	24 10.9	76 38 35.7
10	—	—	—	—	δ N. L.	5 53 25.2	- 26.3	.....	0 16.8	62 14 8.0
11	29.72	45.3	39.8	38.8	δ Geminorum ...	0 29 40.8	- 33.3	- 6.1	29 0.0	67 45 24.8
12	—	45.0	38.4	37.8	ν Geminorum R.	234 32 17.4	+ 26.9	+ 6.6	32 50.1	62 47 14.9
13	—	44.8	37.8	37.8	ϕ Geminorum R.	234 36 56.1	+ 27.1	+ 5.8	37 28.1	62 51 52.9
14	29.72	44.0	38.5	*	$20^h 29^m 5^s$ S.P.	73 35 36.6	+ 56.1	- 13.3	36 18.2	5 21 53.4
15	29.73	43.8	38.8	72 62	B.A.C. S.P.	104 13 18.0	+ 205.7	- 13.8	16 28.3	36 2 3.5
16	—	43.7	38.8	18	Urs. Maj. c. ...	32 51 13.9	+ 2.9	- 4.3	51 11.4	35 23 13.4
17	29	30.45	47.3	41.0	ν Orionis	353 2 9.9	- 45.2	- 5.7	1 18.6	75 13 6.2
18	—	—	46.9	40.2	ν Geminorum ...	358 33 7.7	- 36.8	- 7.2	32 22.9	69 42 1.9
19	—	—	—	—	51 Aurigæ	17 45 39.6	- 13.1	- 13.2	45 12.8	50 29 12.0
20	—	—	—	—	58 Aurigæ	20 11 36.3	- 10.4	- 13.5	11 12.0	48 3 12.8
21	30.45	45.6	39.8	38	Geminorum c	351 36 44.7	- 47.7	- 4.6	35 52.0	76 38 32.8
22	—	—	—	—	2304 B.A.C.	347 36 2.9	- 55.0	- 3.2	35 4.2	80 39 20.6
23	—	—	—	—	* $19^h 1^m 20^s$ S.P.	71 42 37.2	+ 53.7	- 23.8	43 6.6	3 28 41.8
24	—	—	—	—	.....	37.4				
25	30.46	44.3	39.2	7	Draconis ... S.P.	85 8 12.9	+ 86.4	- 23.9	9 14.6	16 54 49.8
26	—	43.2	37.4	—	Pollux	6 37 11.9	- 26.2	- 7.2	36 38.1	61 37 46.7
27	Mich 7	30.24	42.3	35.0	δ Cancri	356 55 59.6	- 39.3	- 2.4	55 17.8	71 19 7.0
28	—	—	—	—	* $8^h 46^m 50^s$...	341 55 31.8	- 67.2	+ 1.3	54 25.8	86 19 59.0
29	—	—	—	—	* $20^h 56^m 20^s$ S.P.	73 6 16.2	+ 56.6	- 16.4	6 56.3	4 52 31.5
30	30.24	40.1	33.4	12	Leonis	4 15 45.9	- 29.2	- 0.8	15 15.8	63 59 9.0
31	—	—	—	—	19 Leonis	350 29 10.8	- 50.0	+ 2.0	28 22.5	77 46 2.3
32	30.23	39.3	32.4	π	Leonis R.	253 0 43.6	+ 56.6	- 3.0	1 37.1	81 16 1.9

February 29. Index Cor. - $0^{\circ}.6$; Run + $0^{\circ}.5$.March 7. Index Cor. - $0^{\circ}.2$; Run + $0^{\circ}.5$.

- 5 Nearest division; tremulous.
7 Nearest division.
9 Nearest division.
10 Semi-diam. - $15' 6''.1$; Par. + $22' 25''.6$;
nearest division.
15 Nearest division.

- 18 Nearest division.
22 Microscope C read off 10° too great.
24 Division above.
25 Nearest division; foggy.
26 In thick fog; scarcely visible.
32 Very unsteady.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Feb 7	30.23	39.0	32.2	λ Hydre 326 37 41.9	} 42.8	- 120.7	+ 5.3	35 46.7	101 38 38.1
2					.....				
3	8	30.17	45.0	39.7	β Can. Maj. 320 23 42.8		- 159.2	+ 4.5	21 7.8	107 53 17.0
4			44.8	38.7	γ Camelopardi. 47 17 20.7		+ 18.6	- 21.9	17 17.4	20 57 7.4
5				38.8	δ Can. Maj. 318 19 56.0		- 178.6	+ 5.0	17 2.2	109 57 22.6
6			44.8	38.8	ϵ Can. Maj. 322 51 16.0		- 141.0	+ 3.9	48 58.8	105 25 26.0
7					ζ Lyncei 38 7 51.5		+ 8.5	- 18.5	7 41.6	30 6 43.2
8					η Geminorum 6 19 50.2		- 26.2	- 8.5	19 15.3	61 55 9.5
9					θ Can. Min. 346 52 45.4		- 55.8	- 2.3	51 47.4	81 22 37.4
10			44.2	40.3	ι Argûs 313 48 15.5		- 238.2	+ 5.9	44 22.8	114 30 2.0
11			44.0	39.7	2673 B.A.C. R. 259 0 51.5		+ 68.6	0.0	2 0.0	87 16 24.8
12					κ Cancri (1st) R. 243 40 9.1		+ 39.8	+ 3.7	40 52.4	71 55 17.2
13					* 20 ^h 16 ^m 30 ^s S.P. 69 40 14.5		+ 49.6	- 19.8	40 44.1	1 26 19.3
14			43.6	38.6	7090 B.A.C. S.P. 89 55 48.1		+ 103.0	- 20.9	57 10.1	21 42 45.3
15					δ Cancri R. 243 4 3.8		+ 39.0	+ 2.4	4 44.9	71 19 9.7
16					ρ^1 Cancri 7 2 44.4		- 25.4	- 4.5	2 14.6	61 12 10.2
17		30.17	43.0	37.5	ι Urs. Maj. 20 35 42.9		- 9.9	- 7.2	35 25.7	47 38 59.1
18					ξ Cancri R. 239 7 30.7		+ 33.5	+ 2.1	8 6.4	67 22 31.2
19		30.16	42.2	36.0	β Ceph. (2d) S.P.R. 151 42 42.4		- 97.0	+ 15.2	41 20.7	20 4 14.5
20					* 9 ^h 44 ^m 50 ^s 62 50 21.0		+ 38.8	- 10.2	50 49.4	5 23 35.4
21					7760 B.A.C. S.P. 88 47 39.6	} 40.1	+ 99.0	- 10.9	49 7.8	20 34 43.0
22					.....				
23		30.16	41.3	36.5	ϕ Urs. Maj. 34 57 25.2		+ 5.2	- 1.9	57 28.5	33 16 56.3
24	11	29.86	42.8	30.5	β Can Maj. 320 23 46.3		- 160.8	+ 4.6	21 9.5	107 53 15.3
25					γ Aurigæ 17 45 40.9		- 13.1	- 13.8	45 13.6	50 29 11.2
26					δ Camelopardi. 47 17 20.1		+ 18.7	- 22.2	17 16.3	20 57 8.5
27		29.85	40.8	30.8	ϵ Can. Maj. 309 33 20.9		- 344.6	+ 7.1	27 42.7	118 46 42.1
28					ζ Geminorum ... 8 43 38.2		- 23.4	- 9.9	43 4.3	59 31 20.5
29					η Camelopardi. 38 24 21.2		+ 8.9	- 18.7	24 10.8	29 50 14.0
30			39.3	31.7	θ Geminorum 6 19 50.3		- 26.3	- 8.6	19 14.9	61 55 9.9
31					ι Geminorum ... 5 27 45.0		- 27.4	- 8.0	27 9.4	62 47 15.4
32					Pollux 6 37 13.0		- 26.0	- 7.9	36 38.8	61 37 46.0
33					ϕ Geminorum R. 234 36 54.7		+ 27.6	+ 7.3	37 29.3	62 51 54.1

March 8. Index Cor. - 0".2; Run + 0".5.

11. Index Cor. - 0".5; Run + 0".5. An unfavourable night; stars very unsteady.

1 Flickering.

2 Division above.

3 Nearest division.

9 Faint; bearing no illumination.

10 Nearest division; very unsteady.

13 Very faint.

19 Unsteady.

22 Division above.

24 Nearest division.

27 Nearest division; great undulation.

28 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian	Refrac- tion.	Reduc- tion to Mean S.P.D.	Min and Sec. of reduced Circle Reading.	Mean S.P.D. of Stars and Geo- centric S.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	"	° ' "
1	Feb 11	29.85	37.8	30.9	ψ^2 Cancri.....R.	235 48 36.5	+ 29.1	+ 6.2	49 11.7	64 3 36.5
2		—	—	—	ϕ^1 Cancri.....	6 36 49.4	- 26.0	- 6.1	36 17.0	61 38 7.8
3		29.85	37.0	30.4	α 83 B.A.C.	307 19 6.5	- 441.9	+ 7.2	11 51.2	121 2 33.6
4		—	—	—	ϵ Hydræ.....R.	254 47 57.6	+ 59.8	- 0.4	48 56.3	83 3 21.1
5		—	—	—	18 Urs. Maj. e...	32 51 17.9	+ 3.0	- 9.3	51 11.2	35 23 13.6
6		—	—	—	18 Leonis.....	350 43 30.9	- 49.3	+ 1.8	42 42.8	77 31 42.0
7		29.84	35.3	28.8	π Leonis.....	346 59 20.6	- 56.3	+ 3.1	58 26.8	81 15 58.0
8		29.83	—	28.4	λ Hydræ.....	326 37 42.3	- 120.0	+ 5.8	35 47.9	101 38 36.9
9	13	29.97	39.9	32.7	δ Aurigæ.....	20 11 36.3	- 10.4	- 14.4	11 11.1	48 3 13.7
10		—	—	—	39 Geminorum..	4 30 62.8	- 28.7	- 8.9	30 24.7	63 44 0.1
11		—	—	—	δ Can. Maj.....	312 8 51.4	- 273.4	+ 6.7	4 24.0	116 10 0.8
12		—	38.8	32.2	λ Geminorum...	355 3 0.2	- 42.1	- 5.2	2 12.6	73 12 12.2
13		—	—	—	22 Lynceis.....	28 2 35.3	- 2.1	- 15.5	2 17.4	40 12 7.4
14		—	37.3	31.0	ξ Argûs.....	313 48 18.6	- 241.4	+ 6.5	44 22.9	114 30 1.9
15		—	—	—	6 Cancri.....	6 26 40.7	- 26.3	- 7.3	26 6.7	61 48 18.1
16		—	—	—	ζ Cancri (1st) R.	243 40 10.5	+ 40.3	+ 3.9	40 54.1	71 55 18.9
17		—	—	—	* 8 ^h 15 ^m 5 ^s	63 55 30.5	+ 40.7	- 20.3	55 50.4	4 13 34.4
18		—	36.1	30.2	η Cancri.....	359 10 45.7	- 36.1	- 3.8	10 5.3	69 4 19.5
19		—	—	—	δ Cancri.....R.	243 4 5.0	+ 39.4	+ 2.6	4 46.3	71 19 11.1
20		—	—	—	56 Cygni... S.P.	114 38 59.4	+ 583.9	- 20.3	48 22.3	46 33 57.5
21		—	35.0	29.5	16 Urs. Maj. e...	40 15 11.3	+ 11.0	- 11.6	15 10.1	27 59 14.7
22		—	—	—	α Lynceis.....	13 14 45.7	- 18.2	- 4.6	14 22.3	55 0 2.5
23		29.97	34.8	29.5	22 Urs. Maj.....	51 4 40.6	+ 23.4	- 12.1	4 51.3	17 9 33.5
24		—	—	—	ϵ Hydræ.....R.	262 13 53.3	+ 78.1	- 3.8	15 6.9	90 29 31.7
25		—	—	—	22 Leonis.....R.	236 40 37.6	+ 30.5	+ 0.3	41 7.9	64 55 32.7
26		29.98	34.0	29.0	18 Cephei... S.P.	95 47 13.3	+ 134.2	- 13.8	49 13.3	27 34 48.5
27		—	—	—	30 Leo Min....R.	227 13 32.9	+ 18.8	- 0.4	13 50.6	55 28 15.4
28	14	30.03	40.4	35.8	δ N. L.	6 18 53.0	- 26.3	.....	25 26.5	61 48 58.3
29		—	—	—	ζ Geminorum...	359 1 47.6	- 36.0	- 7.0	1 4.1	69 13 20.7
30		—	39.9	35.5	δ Can. Maj.....	312 8 48.4	- 272.1	+ 6.8	4 22.3	116 10 2.5
31		—	—	—	δ Geminorum...	0 29 43.9	- 33.9	- 7.0	29 2.3	67 45 22.5
32		—	39.2	35.0	α 70 B.A.C.	327 0 14.6	- 117.2	+ 3.4	58 20.1	101 16 4.7
33		—	39.0	34.4	ξ Argûs.....	313 48 16.6	- 240.2	+ 6.6	44 22.1	114 30 2.7

March 13. Index Cor. - 0°.6; Run + 0°.5.

March 14. Index Cor. - 0°.7; Run + 0°.5.

1 Very unsteady.

4 Nearest division.

6 Nearest division.

11 Nearest division.

14 Nearest division; flickering.

20 Nearest division; faint.

24 Nearest division.

27 Nearest division.

28 Semi-diam. - 15' 13".8; Par. + 22' 14".4; nearest division.

29 Light clouds.

30 Nearest division.

33 Nearest division; great undulation.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Mch 14	30.03	38.6	34.1	2703 B.A.C.	1 7 4.9	- 33.2	- 5.6	6 25.6	67 7 59.2
2		—	38.3	33.8	6994 B.A.C... S.P.	93 53 24.1	+ 122.2	- 23.4	55 2.5	25 40 37.7
3		30.03	38.0	33.4	2883 B.A.C.	307 19 9.5	- 441.4	+ 7.7	11 55.0	121 2 29.8
4		—	—	—	ε Hydræ	345 12 4.0	- 59.7	+ 0.4	11 4.2	83 3 20.6
5		—	—	—	* 8 ^h 46 ^m 50 ^s	341 55 29.3	- 67.0	+ 1.5	54 23.1	86 20 1.7
6		30.02	37.0	33.3	θ Hydræ R.	258 49 17.4	+ 68.7	- 2.3	50 23.0	87 4 47.8
7		—	—	—	3245 B.A.C.	50 27 30.1	+ 22.5	- 12.1	27 39.9	17 46 44.9
8		—	—	—	.....	30.4				
9		—	—	—	14 Leo Min.	24 1 28.4	- 6.3	- 5.3	1 16.2	44 13 8.6
10		—	—	—	* 9 ^h 44 ^m 50 ^s	62 50 21.9	+ 38.9	- 11.9	50 48.2	5 23 36.6
11		—	36.6	31.9	16 Cephei... S.P.	85 43 29.2	+ 88.4	- 13.4	44 43.3	17 30 18.5
12		—	—	—	μ Urs. Maj.	20 27 58.2	- 10.2	- 1.4	27 45.7	47 46 39.1
13		—	36.3	30.8	36 Urs. Maj.	34 57 25.4	+ 5.2	- 3.3	57 26.8	33 16 58.0
14	24	29.89	44.0	34.5	23 Lynceis	35 39 0.3	+ 5.9	- 18.3	38 46.4	32 35 38.4
15		29.89	42.8	33.8	6 Caneri	6 26 43.5	- 26.1	- 8.0	26 8.2	61 48 16.6
16		—	—	—	R Cancri	350 25 13.5	- 49.5	- 2.2	24 20.4	77 50 4.4
17		29.88	41.5	33.7	δ Caneri	356 55 59.2	- 39.0	- 3.2	55 15.7	71 19 9.1
18	26	29.80	42.2	34.7	33 Hydræ	332 59 25.3	- 91.6	+ 5.1	57 57.2	95 16 27.6
19		—	—	—	78 Draconis. S.P.	86 33 36.6	+ 90.1	- 18.1	34 47.0	18 20 22.2
20		29.79	41.2	33.8	16 Cephei... S.P.	85 43 33.5	+ 87.4	- 16.5	44 42.8	17 30 18.0
21		—	—	—	7754 B.A.C... S.P.	102 4 13.9	+ 182.5	- 16.3	6 58.5	33 52 33.7
22		—	—	—	42 Leonis	353 57 7.0	- 43.4	+ 2.5	56 24.8	74 18 0.0
23		—	—	—	36 Urs. Maj.	34 57 28.1	+ 5.2	- 6.0	57 26.0	33 16 58.8
24		29.79	39.3	33.4	3645 B.A.C.	47 25 50.9	+ 18.8	- 7.5	26 0.8	20 48 24.0
25		—	—	—	52 Leonis <i>k</i>	353 12 21.5	- 44.7	+ 4.1	11 39.6	75 2 45.2
26		29.78	38.8	33.0	χ Leonis	346 22 5.7	- 56.9	+ 6.2	21 13.7	81 53 11.1
27		—	—	—	3831 B.A.C.	359 9 59.4	- 35.7	+ 4.7	9 26.9	69 4 57.9
28		—	38.0	32.5	7 Leonis	341 54 21.4	- 66.6	+ 7.8	53 21.0	86 21 3.8
29	27	29.78	44.4	39.4	S Geminorum ...	2 2 13.2	- 31.3	- 7.3	1 33.3	66 12 51.5
30		29.79	44.2	39.6	2590 B.A.C.	58 5 61.6	+ 31.5	- 23.5	6 8.2	10 8 16.6
31		—	—	—	* 7 ^h 55 ^m 20 ^s	63 55 30.3	+ 39.7	- 23.8	55 44.8	4 18 40.0
32		—	—	—	* 8 ^h 5 ^m 10 ^s	64 30 31.8	+ 40.6	- 23.4	30 47.6	3 43 37.2

March 24. Index Cor. - 1".4; Run + 0".5. Night very hazy, and stars tremulous.

26—27. Index Cor. - 1".5; Run + 0".5. Windy nights.

- 3 Scarcely visible.
6 Very unsteady; wind very troublesome.
8 Division above.
11 Nearest division; flickering.
12 Nearest division.

- 14 Nearest division.
17 Very unsteady.
19—20 Nearest division.
29 Seen with great difficulty in the twilight.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	"	° ' "
1	Mch 27	29.79	43.5	37.6	1418 Gr.	63 47 2.9	+ 39.6	- 22.8	47 18.4	4 27 6.4
2	—	—	43.2	36.9	η Caneri	359 10 45.5	- 35.4	- 4.5	10 4.2	69 4 20.6
3	—	—	—	—	* 8 ^h 34 ^m 0 ^s	64 20 44.5	+ 40.6	- 21.5	21 2.2	3 53 22.6
4	—	—	42.2	35.5	7262 B.A.C. ... S.P.	104 13 23.9	+ 207.6	- 22.7	16 27.1	36 2 2.3
5	—	—	—	—	θ Hydræ R.	258 49 20.9	+ 68.0	- 2.5	50 24.8	87 4 49.6
6	—	—	—	—	* 9 ^h 25 ^m 20 ^s	62 23 50.2	+ 37.8	- 17.0	24 9.4	5 50 15.4
7	—	—	—	—	7564 B.A.C. ... S.P.	87 33 36.8	+ 93.7	- 18.7	34 50.2	19 20 25.4
8	—	—	39.2	33.4	7642 B.A.C. ... S.P.	104 55 59.8	+ 218.5	- 17.9	59 19.0	36 44 54.2
9	—	—	—	—	7754 B.A.C. ... S.P.	102 4 12.6	+ 182.9	- 16.5	6 57.4	33 52 32.6
10	—	—	—	—	30 Leo Min.	12 46 27.1	- 18.6	- 1.6	46 5.5	55 28 19.3
11	—	—	38.1	32.0	48 Leonis	345 56 57.9	- 57.9	+ 4.8	56 3.5	82 18 21.3
12	—	—	—	—	* 10 ^h 40 ^m 50 ^s ...	63 21 15.6	+ 39.4	- 9.5	21 44.1	4 52 40.7
13	—	—	—	—	* 10 ^h 50 ^m 30 ^s ...	64 32 58.6	+ 41.3	- 8.6	33 30.1	3 40 54.7
14	—	—	37.1	31.0	β Crateris	316 15 16.6	- 203.2	+ 9.7	12 1.6	112 2 23.2
15	—	—	37.0	30.4	3861 B.A.C.	343 55 32.8	- 62.3	+ 7.3	54 36.4	84 19 48.4
16	29	30.10	43.8	34.0	23 Lyneis	35 38 58.4	+ 6.0	- 18.7	38 44.0	32 35 40.8
17	—	—	—	—	φ Geminorum ...	5 23 8.9	- 27.6	- 8.2	22 31.2	62 51 53.6
18	—	—	42.2	33.2	28 Monocerotis ..	337 15 58.7	- 79.2	+ 1.4	14 39.6	90 59 45.2
19	—	—	42.1	33.0	15 Argus	314 24 41.1	- 231.2	+ 7.8	20 56.1	113 53 28.7
20	—	30.10	41.5	31.5	29 Caneri	352 56 20.4	- 45.7	- 2.8	55 30.7	75 18 54.1
21	—	30.11	41.0	31.0	2883 B.A.C.	307 19 5.1	- 445.1	+ 9.6	11 47.9	121 2 36.9
22	—	—	—	—	ε Hydræ	345 12 6.5	- 60.2	+ 0.3	11 5.5	83 3 19.3
23	—	—	—	—	10 Urs. Maj.	20 35 46.5	- 10.1	- 10.0	35 25.1	47 38 59.7
24	—	—	40.0	31.3	σ ² Urs. Maj.	45 57 16.6	+ 17.3	- 16.4	57 16.5	22 17 8.3
25	—	—	39.2	30.5	23 Urs. Maj. h. R.	198 4 17.3	- 12.8	+ 13.7	4 16.6	26 18 41.4
26	—	—	—	—	ε Leonis R.	237 18 56.2	+ 31.4	+ 1.9	19 27.8	65 33 52.6
27	—	—	—	—	22 Leonis R.	236 40 34.1	+ 30.5	+ 1.8	41 5.0	64 55 29.8
28	—	—	38.1	30.0	η Leonis R.	244 17 10.7	+ 41.4	- 1.1	17 49.9	72 32 14.7
29	—	—	—	—	3515 B.A.C.	23 1 22.6	- 7.5	- 4.9	1 9.0	45 13 15.8
30	—	30.11	37.7	29.3	β Lacertæ ... S.P.	106 39 59.2	+ 252.1	- 15.8	43 54.0	38 29 29.2
31	—	—	—	—	* 22 ^h 30 ^m 40 ^s S.P.	70 52 48.2	+ 52.7	- 12.2	53 28.0	2 39 3.2
32	—	—	—	—	.....	49.6				
33	—	—	—	—	ι Cephei S.P.	92 45 61.6	+ 117.9	- 12.8	47 45.4	24 33 20.6
34	—	30.10	36.1	28.4	* 10 ^h 50 ^m 30 ^s ...	64 32 56.3	+ 42.0	- 9.1	33 28.3	3 40 56.5

March 29. Index Cor. - 1".5; Run + 1".0.

4 Nearest division.
5 Very unsteady.
6—7 Nearest division.
16—17 Nearest division.

26 Nearest division.
27 Very unsteady.
32 Division above.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Mch 29	30.10	35.7	28.4	A. Z. cxlii. 160. S.P.	99 41 21.8	+163.5	-11.3	43 52.8	31 29 28.0
2	—	—	35.0	28.5	* 23 ^h 24 ^m 10 ^s S.P.	72 36 6.5	+56.0	-6.4	36 54.8	4 22 30.0
3	31	29.90	46.3	42.0	R Cancri	350 25 12.7	-48.7	-2.4	24 20.1	77 50 4.7
4	—	—	—	—	29 Cancri	352 56 16.9	-44.5	-2.8	55 28.4	75 18 56.4
5	—	—	—	—	* 8 ^h 34 ^m 0 ^s	64 20 48.3	+40.4	-22.1	21 5.3	3 53 19.5
6	—	29.90	46.1	39.4	* 8 ^h 46 ^m 50 ^s	341 55 26.0	-65.9	+1.6	54 20.3	86 20 4.5
7	—	—	—	—	σ ² Urs. Maj.	45 57 18.1	+16.9	-16.8	57 17.3	22 17 7.5
8	—	—	—	—	.....	19.2				
9	—	—	—	—	20 Urs. Maj.	38 37 34.6	+9.0	-14.1	37 28.5	29 36 56.3
10	—	29.89	45.0	36.8	* 9 ^h 23 ^m 10 ^s	62 37 30.0	+38.1	-18.0	37 49.1	5 36 35.7
11	—	—	—	—	14 Leo Min.	24 1 29.6	-6.3	-8.1	1 14.0	44 13 10.8
12	—	—	—	—	* 9 ^h 48 ^m 10 ^s	66 13 4.4	+43.8	-16.3	13 31.0	2 0 53.8
13	—	29.88	44.2	33.0	34 Leonis.....R.	247 41 2.4	+46.3	-2.1	41 45.3	75 56 10.1
14	—	—	—	—	45 Leonis.....R.	251 15 8.0	+52.6	-3.7	15 55.4	79 30 20.2
15	—	—	—	—	* 10 ^h 40 ^m 50 ^s ...	63 21 18.3	+39.6	-10.5	21 46.2	4 52 38.6
16	—	29.87	43.8	30.8	* 10 ^h 50 ^m 30 ^s ...	64 32 59.4	+41.5	-9.7	33 30.3	3 40 54.5
17	—	29.86	43.0	30.4	8107 B.A.C....S.P.	105 44 29.0	+233.1	-11.2	48 9.3	37 33 44.5
18	—	—	—	—	* 23 ^h 25 ^m 50 ^s S.P.	73 0 41.5	+56.2	-6.8	1 29.5	4 47 4.7
19	April 1	29.68	50.6	53.0	15 Argūs	314 24 28.0	-218.6	+7.9	20 55.6	113 53 29.2
20	—	—	—	—	1418 Gr.	63 47 7.7	+38.2	-23.4	47 21.3	4 27 3.5
21	—	—	51.5	52.4	29 Cancri	352 56 16.8	-43.2	-2.9	55 29.4	75 18 55.4
22	—	—	—	—	* 20 ^h 31 ^m 10 ^s S.P.	73 34 3.0	+54.4	-23.6	34 32.0	5 20 7.2
23	—	—	—	—	5 Urs. Maj.	40 44 20.2	+10.9	-16.7	44 12.7	27 30 12.1
24	—	—	—	—	10 Urs. Maj.	20 35 47.3	-9.5	-10.4	35 26.0	47 38 58.8
25	—	29.68	52.3	50.6	7 Urs. Maj.	42 20 13.8	+12.6	-15.9	20 8.9	25 54 15.9
26	—	—	—	—	α Lyncis	13 14 48.1	-17.3	-6.9	14 22.3	55 0 2.5
27	—	—	—	—	λ Leonis	238 9 4.1	+30.7	+2.8	9 35.8	66 24 0.6
28	—	29.67	52.5	50.7	ψ Leonis	352 55 51.5	-43.3	+0.4	55 7.2	75 19 17.6
29	—	29.67	52.8	50.6	7636 B.A.C....S.P.	102 39 40.5	+181.8	-18.9	42 21.7	34 27 56.9
30	—	—	—	—	18 Cephei...S.P.	95 47 26.4	+127.0	-17.9	49 14.2	27 34 49.4
31	—	—	—	—	.....	27.1				
32	—	29.66	52.5	50.0	3820 Gr...S.P.R.	167 9 10.7	-53.3	+13.9	8 29.5	4 37 5.7
33	—	—	—	—	52 Leonis <i>k</i>	353 12 19.9	-43.0	+3.7	11 39.5	75 2 45.3

March 31. Index Cor. - 1".5; Run + 1".0.

April 1. Index Cor. - 1".6; Run + 1".0. A hazy night.

8 Division above.
17 Flickering.
22 Nearest division.

27 Nearest division.
31 Division above.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle-Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	April 1	29.66	52.3	49.5	* 10 ^h 50 ^m 30 ^s ...	64 33 4.9	+ 39.6	- 9.9	33 32.6	3 40 52.2
2		—	52.2	49.2	8083 B.A.C. ... S.P.	101 49 21.3	+ 173.4	- 11.7	52 1.3	33 37 36.5
3		—	—	—	* 23 ^h 19 ^m 0 ^s S.P.	72 57 41.1	+ 53.6	- 7.9	58 25.7	4 44 0.9
4		29.66	52.0	48.8	γ Cephei ... S.P. R.	158 36 26.4	- 72.0	+ 7.3	35 20.4	13 10 14.8
5	2	29.61	52.0	46.9	3489 B.A.C.	311 59 34.6	- 265.2	+ 10.3	55 18.0	116 19 6.8
6	4	29.65	51.3	41.7	φ ¹ Caneri	6 36 52.8	- 25.3	- 7.7	36 18.6	61 38 6.2
7		—	—	—	2898 B.A.C.	311 57 50.6	- 269.3	+ 9.1	53 29.4	116 20 55.4
8		—	—	—	5 Urs. Maj. <i>b</i> ...	40 44 20.1	+ 11.1	- 17.1	44 12.4	27 30 12.4
9		29.64	49.3	40.7	κ Urs. Maj.	25 58 5.6	- 4.1	- 12.2	57 47.3	42 16 37.5
10		—	—	—	18 Urs. Maj. <i>c</i> ...	32 51 24.3	+ 2.9	- 13.4	51 12.5	35 23 12.3
11		—	—	—	* 9 ^h 23 ^m 30 ^s ...	66 2 56.1	+ 42.7	- 19.2	3 18.6	2 11 6.2
12		—	48.0	39.4	18 Leonis	350 43 31.2	- 47.9	+ 1.0	42 42.4	77 34 42.4
13		—	48.0	39.4	7636 B.A.C. ... S.P.	102 39 37.1	+ 185.8	- 19.3	42 21.9	34 27 57.1
14		—	—	—	15 Cephei ... S.P.	99 5 11.4	+ 152.5	- 18.5	7 23.8	30 52 59.0
15		29.64	47.3	38.9	ε Cephei ... S.P.	101 52 12.5	+ 177.5	- 17.6	54 51.2	33 40 26.4
16		—	—	—	β Lacertae ... S.P.	106 40 9.1	+ 243.3	- 16.7	43 54.1	38 29 29.3
17		—	—	—	7878 B.A.C. S.P. R.	151 24 50.4	- 96.0	+ 15.5	23 28.3	20 22 6.9
18		29.63	46.1	37.6	* 10 ^h 50 ^m 30 ^s ...	64 33 2.4	+ 40.5	- 10.7	33 30.2	3 40 54.6
19		—	—	—	ξ Urs. Maj. (1st)	10 35 6.7	- 20.8	+ 1.8	34 46.1	57 39 38.7
20		29.62	45.1	36.9	88 Leonis ... R.	246 34 58.1	+ 43.7	- 6.1	35 34.1	74 49 58.9
21	5	29.20	49.8	42.9	ι Hydra	337 46 6.8	- 73.9	+ 4.3	44 55.8	90 29 29.0
22		29.18	48.0	41.4	3566 B.A.C.	332 34 0.1	- 89.8	+ 7.2	32 35.7	95 41 49.1
23		—	—	—	3645 B.A.C.	47 25 52.0	+ 18.1	- 9.9	25 58.8	20 48 26.0
24		—	—	—	* 10 ^h 40 ^m 50 ^s ...	63 21 17.5	+ 37.9	- 11.8	21 42.3	4 52 42.5
25		29.17	47.1	40.6	3747 B.A.C.	56 46 25.5	+ 29.1	- 10.0	46 43.3	11 27 41.5
26		29.17	47.0	40.4	5 Androm. ... S.P.	109 38 49.7	+ 305.5	- 13.0	43 40.4	41 29 15.6
27		—	—	—	ξ Urs. Maj. (1st)	10 35 3.0	- 20.3	+ 1.7	34 42.8	57 39 42.0
28		—	—	—	59 Urs. Maj.	22 39 57.3	- 7.4	+ 0.9	39 49.2	45 34 35.6
29		—	—	—	3992 B.A.C.	353 20 0.5	- 42.9	+ 7.0	19 23.0	74 55 1.8
30		29.14	46.0	40.2	* 11 ^h 51 ^m 40 ^s ...	66 1 30.8	+ 41.9	- 4.3	2 7.1	2 12 17.7

April 2. Index Cor. - 1".6; Run + 1".0. Cloudy.

April 4. Index Cor. - 1".6; Run + 1".0.

April 5. Index Cor. - 1".6; Run + 1".0.

1 Nearest division.

2 Undulating.

3 Scarcely visible.

9 Nearest division.

12 Nearest division; flickering.

18 Nearest division.

22 Nearest division.

26 Nearest division; great undulation.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Apr. 12	29.45	54.0	48.5	33 Hydræ	332 59 22.0	- 87.9	+ 5.5	57 57.4	95 16 27.4
2					ψ Leonis	352 55 52.4	- 43.2	- 0.2	55 7.1	75 19 17.7
3		29.45	53.2	48.2	* 9 ^h 47 ^m 40 ^s	64 45 48.2	+ 39.7	- 18.4	46 7.6	3 28 17.2
4					34 Leonis	352 19 1.9	- 44.3	+ 1.4	18 16.7	75 56 8.1
5					30 Leo Min.	12 46 28.7	- 17.8	- 3.8	46 5.3	55 28 19.5
6		29.46	52.0	46.8	3645 B.A.C.	47 25 57.6	+ 18.0	- 11.5	26 2.2	20 48 22.6
7					46 Leo Min.	13 14 10.8	- 17.3	- 1.9	13 49.3	55 0 35.5
8			51.6	46.5	5 Androm. S.P.	109 38 54.7	+ 304.6	- 13.9	43 43.1	41 29 18.3
9					ξ Urs. Maj. (1st)	10 35 8.1	- 20.3	+ 0.6	34 46.3	57 39 38.5
10					* 23 ^h 24 ^m 10 ^s S.P.	72 36 16.3	+ 52.9	- 10.1	36 57.3	4 22 32.5
11					ξ Virginis	347 18 44.5	- 53.0	+ 7.4	17 56.5	80 56 28.3
12		29.46	50.9	45.8	1830 Gr.	16 59 42.2	- 13.3	+ 1.9	59 28.6	51 14 56.2
13		29.47	50.5	45.1	α Corvi	314 22 24.3	- 221.1	+ 12.6	18 54.0	113 55 30.8
14					.....	25.0				
15					1884 Gr.	66 43 39.9	+ 43.1	- 3.8	44 16.8	1 30 8.0
16		29.47	49.9	43.2	γ Virginis	337 35 54.0	- 75.0	+ 11.2	34 48.3	90 39 36.5
17	15	29.97	48.2	41.9	33 Hydræ	332 59 25.9	- 90.7	+ 5.5	57 58.5	95 16 26.3
18					22 Leonis	3 19 31.9	- 29.7	- 3.3	18 56.7	64 55 28.1
19		29.98	47.2	40.9	* 9 ^h 47 ^m 40 ^s	64 45 47.7	+ 41.1	- 18.8	46 8.1	3 28 16.7
20			46.9	40.4	Regulus	350 55 25.1	- 48.1	+ 1.5	54 36.5	77 19 48.3
21					3515 B.A.C.	23 1 24.7	- 7.3	- 7.7	1 7.9	45 13 16.9
22		29.98	46.0	40.4	24 Sextantis	338 5 9.7	- 75.5	+ 5.8	3 57.9	90 10 26.9
23					ρ Leonis	348 18 5.0	- 52.8	+ 3.4	17 13.1	79 57 11.7
24		29.99	45.8	40.0	33 Sextantis	337 16 28.4	- 77.8	+ 6.8	15 15.6	90 59 9.2
25					3747 B.A.C.	56 46 31.3	+ 30.0	- 12.3	46 47.2	11 27 37.6
26			45.0	39.5	χ Leonis	346 22 7.5	- 56.6	+ 5.5	21 14.7	81 53 10.1
27					73 Leonis n	352 20 43.2	- 45.8	+ 4.6	20 0.0	75 54 24.8
28		29.99	44.6	39.3	λ Crateris	320 17 35.6	- 159.2	+ 11.6	15 6.5	107 59 18.3
29					.....	36.8				
30					59 Urs. Maj.	22 40 0.8	- 7.6	- 1.2	39 49.9	45 34 34.9
31		30.00	44.0	38.9	1830 Gr.	16 59 43.5	- 13.7	+ 1.3	59 28.9	51 14 55.9
32					* 23 ^h 55 ^m 20 ^s S.P.	71 59 49.3	+ 53.5	- 7.4	0 33.3	3 46 8.5
33					* 0 ^h 6 ^m 40 ^s S.P.	72 21 21.5	+ 54.2	- 6.2	22 7.7	4 7 42.9
34		30.00	43.7	38.6	86 B.A.C. S.P.	78 58 8.5	+ 68.3	- 5.7	59 8.6	10 44 43.8

April 12. Index Cor. - 2".1; Run + 1".0.

15. Index Cor. - 2".1; Run + 1".0. Night very windy.

4 Nearest division.
8 Nearest division.
11 Nearest division.
14 Division above.
15 Nearest division.

16 South star.
22 Flickering.
23 Nearest division.
29 Division above.
34 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches	Deg.	Deg.		° ' "	"	"	"	° ' "
1	Apr. 16	30.04	47.5	38.8	ϵ Hydrae	357 46 12.3	-76.7	+ 4.3	44 58.0	90 29 26.8
2		—	—	—	δ Leonis	3 19 29.9	-29.9	- 3.4	18 54.4	64 55 30.4
3		—	—	—	* $9^h 47^m 40^s$	64 45 47.2	+41.4	-19.0	46 7.7	3 28 17.1
4		—	46.0	38.5	η Leonis	355 42 56.0	-40.6	- 0.1	42 13.8	72 32 11.0
5		—	—	—	δ Leo Min.	7 39 0.1	-24.5	- 3.3	38 30.0	60 35 54.8
6		—	—	—	δ Leonis	353 57 10.7	-43.4	+ 1.2	56 26.8	74 17 58.0
7		30.04	45.0	37.9	3566 B.A.C.	332 34 8.6	-93.2	+ 7.4	32 40.5	95 41 44.3
8		—	—	—	δ Leonis	345 56 58.3	-57.7	+ 4.1	56 3.0	82 18 21.8
9		30.05	44.2	37.2	* $10^h 40^m 50^s$...	63 21 21.6	+39.3	-14.2	21 44.9	4 52 39.9
10		—	—	—	3747 B.A.C.	56 46 32.8	+30.2	-12.5	46 48.7	11 27 36.1
11		—	—	—	χ Leonis	346 22 7.9	-57.0	+ 5.5	21 14.7	81 53 10.1
12		—	—	—	3831 B.A.C.	359 10 1.9	-35.7	+ 2.7	9 26.8	69 4 58.0
13		—	43.4	36.8	σ Leonis	345 4 26.6	-59.6	+ 6.5	3 31.5	83 10 53.5
14		—	—	—	δ N. L.	344 59 9.5	-59.8	.....	21 24.5	82 53 0.3
15		—	—	—	ν Virginis	345 35 28.7	-58.6	+ 7.6	34 35.7	82 39 49.1
16		—	42.5	36.7	β Virginis	340 50 1.9	-69.2	+ 8.7	48 59.3	87 25 25.5
17		—	—	—	4059 B.A.C.	22 8 57.4	- 8.3	+ 1.3	8 48.1	46 5 36.7
18		—	—	—	A. Z. cxxxxii. 84.	47 44 35.2	+19.2	- 3.2	44 49.0	20 29 35.8
19		—	42.0	36.4	1884 Gr.	66 43 39.1	+44.7	- 4.9	44 16.5	1 30 8.3
20		30.05	41.8	36.1	α Cassiopeiae S.P.	102 26 35.5	+187.2	- 5.9	29 35.0	34 15 10.2
21	18	29.96	49.7	47.0	* $9^h 25^m 20^s$	62 23 55.8	+37.1	-20.4	24 10.2	5 50 14.6
22		—	—	—	ψ Leonis	352 55 53.4	-44.1	- 0.5	55 6.9	75 19 17.9
23		—	—	—	* $9^h 44^m 50^s$	62 50 32.9	+37.8	-19.2	50 49.5	5 23 35.3
24		—	—	—	π Leonis	346 59 20.4	-54.6	+ 2.2	58 25.8	81 15 59.0
25		—	—	—	λ Hydrae	326 37 35.9	-116.3	+ 8.5	35 46.3	101 38 38.5
26		—	—	—	.....	36.6				
27		—	—	—	μ Urs. Maj.	20 28 4.3	- 9.8	- 7.1	27 44.9	47 46 39.9
28		29.97	49.1	44.4	δ Leonis .....R.	254 3 8.4	+56.8	- 4.0	3 58.7	82 18 23.5
29		—	—	—	γ Leonis .....R.	242 6 2.0	+36.9	- 1.2	6 35.8	70 21 0.6
30		29.96	48.3	42.0	α Urs. Maj. ....R.	199 14 1.9	-11.2	- 9.0	13 39.4	27 28 4.2
31	19	30.11	49.0	41.4	3199 B.A.C.	60 11 34.1	+34.5	-20.8	11 46.0	8 2 38.8
32		30.11	48.4	41.4	ϵ Leonis	2 41 7.8	-50.7	- 3.6	40 31.6	65 33 53.2
33		30.13	48.3	39.1	ν Virginis	338 16 21.1	-75.6	+10.2	15 13.9	89 59 10.9

April 16—19. Index Cor. - 2".1; Run + 1".0.

- 1 Tremulous.
5 Nearest division.
14 Semi-diam. - 14' 43".2; Par. + 38' 0".3.
17 Nearest division.
19 Nearest division.
20 Tremulous.

- 21 Nearest division.
26 Division above.
27—28 Nearest division.
30 Nearest division; very unsteady; clouded
over after these observations.
32 Cloudy after this observation.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Apr. 19	30.13	48.0	39.4	4213 B.A.C.	325 40 37.7	-123.5	+12.4	38 44.6	102 35 40.2
2					1923 Gr.	62 39 54.5	+38.2	-2.6	40 28.0	5 33 56.8
3		30.14	47.3	40.0	38 Virginis	335 29 28.4	-83.4	+11.8	28 14.6	92 46 10.2
4					78 Urs. Maj.	35 22 52.6	+5.6	+3.4	23 0.1	32 51 24.7
5					θ Virginis	333 29 36.1	-90.0	+12.5	28 16.4	94 46 8.4
6					Spica	327 51 37.3	-112.7	+13.2	49 56.0	100 24 28.8
7					75 Virginis	323 39 14.5	-135.9	+13.5	37 9.8	104 37 15.0
8		30.13	45.8	37.2	δ N. L.	327 39 29.0	-113.9	.....	10 45.2	100 3 39.6
9					4628 B.A.C.	13 37 25.3	-17.6	+10.9	37 17.0	54 37 7.8
10			45.1	38.5	* 13 ^h 53 ^m 50 ^s ...	55 11 53.9	+28.1	+6.9	12 27.2	13 1 57.6
11					κ Virginis	328 39 58.8	-109.0	+13.9	38 21.6	99 36 3.2
12		30.13	45.0	38.0	λ Virginis	325 33 58.4	-124.5	+13.9	32 5.5	102 42 19.3
13	21	30.01	52.0	44.4	τ Leonis	341 54 22.1	-65.4	+7.4	53 21.9	86 21 2.9
14					61 Urs. Maj.	13 15 39.5	-17.7	+0.3	15 20.1	54 59 4.7
15		30.01	51.5	44.5	1830 Gr.	16 59 44.9	-13.6	+0.2	59 29.3	51 14 55.5
16					67 Urs. Maj.	22 5 16.9	-8.2	+0.3	5 7.0	46 9 17.8
17					A. Z. clxxxii. 84.	47 44 36.1	+18.9	-4.4	44 48.4	20 29 36.4
18					17 Virginis	344 21 41.8	-60.2	+9.3	20 49.1	83 53 35.7
19		30.00	50.5	43.0	A. Z. clxxxix. 77	47 57 6.8	+19.1	-2.5	57 21.7	20 17 3.1
20					A. Z. clxxxix. 93	47 32 33.8	+18.7	-1.1	32 49.8	20 41 35.0
21		30.00	50.0	41.0	78 Urs. Maj.	35 22 53.9	+5.6	+2.9	23 0.9	32 51 23.9
22	23	29.79	54.9	45.6	87 Leonis e	336 3 2.7	-79.8	+8.8	1 50.2	92 12 34.6
23					59 Urs. Maj.	22 40 4.1	-7.5	-2.6	39 51.9	45 34 32.9
24			54.5	45.0	ξ Virginis	347 18 45.5	-53.7	+6.8	17 56.3	80 56 28.5
25					1830 Gr.	16 59 45.1	-13.5	-0.1	59 29.4	51 14 55.4
26	24	29.72	55.1	45.4	24 Sextantis	338 5 6.5	-74.0	+5.7	3 56.1	90 10 28.7
27					* 10 ^h 24 ^m 10 ^s ...	63 43 34.1	+38.8	-17.1	43 14.8	4 31 10.0
28					38 Urs. Maj.	44 42 33.3	+15.3	-13.0	42 34.1	23 31 50.7
29					.....	34.5				
30					46 Leo Min.	13 14 14.1	-17.5	-3.6	13 50.7	55 0 34.1
31		29.71	53.4	44.4	3764 B.A.C.	54 27 7.2	+26.5	-13.2	27 18.8	13 47 6.0
32					8083 B.A.C. ...S.P.	101 49 20.4	+175.8	-15.2	51 58.8	33 37 34.0

April 21-24. Index Cor. - 2".1; Run + 1".0.

8 Semi-diam. - 14' 50".2; Par. + 48' 2".5;
great undulation.

12 Nearest division.

24 Nearest division.

27 Nearest division.

29 Division above.

32 Flickering.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	" ' "	° ' "
1	Apr. 24	29.71	52.3	43.0	α Cephei..... S.P.	90 53 32.6	+104.5	-14.8	54 59.9	22 40 35.1
2		—	—	—	87 Leonis <i>e</i>	336 3 6.0	-80.0	+8.8	1 53.3	92 12 31.5
3		29.70	51.6	43.3	61 Urs. Maj.....	13 15 40.3	-17.5	-0.2	15 20.6	54 59 4.2
4		—	51.0	43.4	67 Urs. Maj.....	22 5 16.8	-8.1	-0.7	5 6.0	46 9 18.8
5		—	—	—	A. Z. clxxxii. 84.	47 44 40.1	+18.7	-5.2	44 51.4	20 29 33.4
6		—	—	—	17 Virginis..... R.	255 38 21.6	+59.5	-9.1	39 9.6	83 53 34.4
7		—	50.7	43.9	η Cassiopeie S.P.	101 8 42.5	+168.9	-6.6	11 22.4	32 56 57.6
8		—	—	—	49 Virginis <i>g</i>	328 17 52.3	-108.1	+13.0	16 15.7	99 58 9.1
9		29.70	49.8	41.4	A. Z. cciv. 16....	46 40 53.9	+17.6	+2.2	41 11.8	21 33 13.0
10	25	29.42	58.5	53.9	3528 B.A.C.	61 31 24.3	+34.7	-17.8	31 39.4	6 42 45.4
11	28	29.44	50.9	39.3	51 Leonis <i>m</i>	357 54 3.5	-36.6	+0.3	53 24.8	70 21 0.0
12		—	—	—	α Crateris	320 44 50.5	-152.8	+11.7	42 27.2	107 31 57.6
13	May 3	30.02	48.0	41.8	n Leonis 73.....	352 20 42.9	-45.6	+3.2	19 58.3	75 54 26.5
14		—	—	—	7 Leonis.....	341 54 22.3	-65.9	+6.9	53 20.9	86 21 3.9
15		30.03	46.7	41.5	8314 B.A.C. S.P.	84 36 42.4	+83.2	-12.8	37 50.8	16 23 26.0
16		—	46.1	40.8	α Corvi.....	314 22 28.7	-227.4	+14.7	18 53.9	113 55 30.9
17		—	—	—	.....	29.2				
18		—	—	—	17 Virginis.....	344 21 42.5	-60.6	+8.6	20 48.5	83 53 36.3
19		—	—	—	A. Z. clxxxix. 79	47 32 53.0	+18.8	-5.1	33 5.0	20 41 19.8
20		30.03	45.0	40.3	10 Can. Ven.....	18 18 21.4	-12.3	+1.9	18 8.4	49 56 16.4
21	5	29.92	46.2	38.8	* 11 ^h 42 ^m 20 ^s ...	16 57 9.3	-13.8	-2.3	56 51.2	51 17 33.6
22		—	—	—	* 11 ^h 46 ^m 55 ^s ...	17 5 8.8	-13.6	-2.0	4 50.8	51 9 34.0
23	9	30.03	48.1	43.6	* 11 ^h 42 ^m 20 ^s ...	16 57 15.9	-13.7	-2.9	56 57.3	51 17 27.5
24		—	48.1	43.6	* 11 ^h 46 ^m 55 ^s ...	17 5 7.6	-13.5	-2.6	4 49.0	51 9 35.8
25		—	—	—	1889 Gr.	62 41 4.7	+37.8	-9.4	41 30.8	5 32 54.0
26		30.03	47.9	43.3	A. Z. clxxxix. 79	47 32 55.7	+18.7	-6.4	33 6.1	20 41 18.7
27		—	—	—	A. Z. clxxxix. 93	47 32 39.8	+18.7	-5.5	32 51.0	20 41 33.8
28		—	—	—	* 12 ^h 53 ^m 50 ^s ...	62 46 45.2	+38.0	-6.0	47 15.1	5 27 9.7
29		30.02	46.8	41.7	72 Virginis <i>b</i> ¹ ...	332 32 16.3	-92.5	+12.9	30 54.7	95 43 30.1
30		—	—	—	2065 Gr.	66 31 4.2	+43.8	-2.0	31 43.7	1 42 41.1

April 25. Index Cor. - 2".1; Run + 1".0.

April 28. Index Cor. - 2".2; Run + 1".0.

May 3. Index Cor. - 2".3; Run + 1".0. An unfavourable night; stars ill defined and unsteady.

5. Index Cor. - 2".4; Run + 1".0.

May 9. Index Cor. - 2".5; Run + 1".0.

- 1 Nearest division.
6 Nearest division.
7 Nearest division; very unsteady.
10 Cloudy.
11 Nearest division.
12 Cloudy.

- 14 Cloudy after this observation.
17 Division above.
20 Nearest division.
21 Scarcely to be seen.
25 Seen with great difficulty in the twilight.
28 Extremely faint.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	May 10	29.84	56.8	53.4	* 1 ^h 46 ^m 55 ^s ...	17 5 7.4	- 13.2	- 2.8	4 48.9	51 9 35.9
2		—	56.2	52.2	10 Virginis	340 57 49.5	- 66.2	+ 8.5	56 49.9	87 17 34.9
3		—	—	—	13 Virginis	338 16 19.2	- 72.9	+ 9.6	15 13.7	89 59 11.1
4		—	—	—	1889 Gr.	62 41 6.3	+ 37.0	- 9.6	41 31.4	5 32 53.4
5		—	—	—	A. Z. clxxxix. 79	47 32 57.5	+ 18.3	- 6.6	33 7.3	20 41 17.5
6		29.84	55.2	50.0	A. Z. clxxxix. 93	47 32 40.2	+ 18.3	- 5.8	32 50.7	20 41 34.1
7		—	—	—	* 12 ^h 53 ^m 50 ^s ...	62 46 46.0	+ 37.2	- 6.2	47 14.9	5 27 9.9
8		—	—	—	A. Z. clxxxix. 127	47 8 5.5	+ 17.8	- 3.0	8 18.4	21 6 6.4
9		—	—	—	80 Urs. Maj. g ...	33 53 44.6	+ 4.0	+ 0.6	58 46.4	34 15 38.4
10		29.83	54.0	48.4	* 13 ^h 28 ^m 30 ^s ...	59 4 6.7	+ 32.2	- 2.3	4 33.9	9 9 50.9
11		—	—	—	4628 B. A. C.	13 37 30.5	- 17.0	+ 6.4	37 17.9	54 37 6.9
12		29.82	53.2	47.6	A. Z. cciv. 79 ...	45 15 49.9	+ 15.9	+ 2.8	16 6.3	22 58 18.5
13	13	29.49	54.9	47.1	87 Leonis e	336 3 5.4	- 78.8	+ 8.3	1 52.8	92 12 32.0
14		—	—	—	ξ Virginis	347 18 48.3	- 53.0	+ 5.4	17 58.8	80 56 26.0
15		—	—	—	1830 Gr.	16 59 49.2	- 13.3	- 3.3	59 29.9	51 14 54.9
16		29.48	52.8	45.6	70 Urs. Maj.	36 54 26.0	+ 7.0	- 6.2	54 24.0	31 20 0.8
17		—	—	—	A. Z. clxxxix. 77	47 57 14.9	+ 18.7	- 7.6	57 23.7	20 17 1.1
18		—	—	—	A. Z. clxxxix. 94	47 41 2.4	+ 18.4	- 6.4	41 11.9	20 33 12.9
19		29.47	51.2	45.9	78 Urs. Maj.	35 23 0.4	+ 5.4	- 2.5	23 1.2	32 51 23.6
20		—	50.9	45.9	ψ Cassiop. S.P.	90 50 15.6	+ 102.8	- 6.2	51 49.6	22 37 24.8
21		—	50.7	45.8	42 Cassiop. S.P.	88 19 26.0	+ 93.0	- 4.7	20 51.5	20 6 26.7
22		—	50.5	45.2	ε Cassiopeiae S.P.	95 15 56.6	+ 124.5	- 3.6	17 55.0	27 3 30.2
23		—	50.2	44.6	2099 Gr.	64 40 35.6	+ 39.9	0.0	41 12.9	3 33 11.9
24		29.47	50.0	44.5	4776 B. A. C.	312 6 47.2	- 262.6	+ 15.7	2 38.0	116 11 46.8
25	17	29.50	53.2	43.6	ε Virginis	349 59 14.1	- 48.6	+ 7.7	58 30.1	78 15 54.7
26		—	52.5	44.3	57 Virginis	319 6 25.6	- 165.3	+ 15.3	3 53.0	109 10 31.8
27	19	29.88	55.9	47.4	A. Z. clxxxix. 93	47 32 44.1	+ 18.4	- 7.5	32 52.5	20 41 32.3
28		29.88	55.2	47.0	41 Androm. S.P.	114 54 24.9	+ 582.9	- 6.4	3 58.3	46 49 33.5
29		—	—	—	Polaris (2d) S.P.	69 41 16.3	+ 48.3	- 7.4	41 54.5	} 1 27 30.2
30		—	—	—	Polaris (2d) S.P.	69 41 17.1	+ 48.3	- 7.4	41 55.2	
31		29.89	55.0	46.5	Polaris (2d) S.P.	69 41 17.2	+ 48.3	- 7.4	41 55.3	
32		—	—	—	* 13 ^h 42 ^m 0 ^s	56 37 14.0	+ 29.2	+ 0.7	37 41.3	11 36 43.5

May 10. Index Cor. - 2".5; Run + 1".0.

17. Index Cor. - 2".9; Run + 1".0.

May 13. Index Cor. - 2".7; Run + 1".0.

19. Index Cor. - 3".0; Run + 1".0.

9 Nearest division.
18 Cloudy.20 Flickering.
25-26 Clouded over after these observations.

No. Obs.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	May 19	29.89	54.3	45.8	* 13 ^b 53 ^m 50 ^s ...	55 12 4.5	+ 27.5	- 1.7	12 27.7	13 1 57.1
2	—	—	—	—	A. Z. cciv. 80	46 29 12.5	+ 17.3	+ 0.2	29 26.8	21 44 58.0
3	—	—	53.9	45.4	4731 B.A.C.	357 50 1.4	- 36.8	+ 9.0	49 30.6	70 24 54.2
4	—	—	—	—	π Boötis R.	244 42 49.5	+ 40.6	- 10.4	43 17.3	72 57 42.1
5	—	—	—	—	ξ Boötis R.	242 3 7.5	+ 36.7	- 10.5	3 31.3	70 17 56.1
6	—	—	52.0	43.4	ε ¹ Libræ R.	319 2 24.0	- 168.5	+ 14.8	59 47.8	109 14 37.0
7	—	—	—	—	5 Serpentis R.	340 34 10.9	- 68.4	+ 13.2	33 12.5	87 41 12.3
8	—	—	—	—	ζ ¹ Libræ R.	322 3 57.8	- 143.6	+ 14.4	1 45.4	106 12 39.4
9	—	—	51.1	44.0	37 Libræ R.	328 41 57.9	- 106.7	+ 14.0	40 22.6	99 34 2.2
10	—	—	—	—	κ Libræ R.	319 4 30.4	- 168.0	+ 14.2	1 53.5	109 12 31.3
11	—	—	50.3	43.6	Δ N. L.	314 46 9.3	- 219.0	.....	20 59.2	112 53 25.6
12	—	—	—	—	5 Herculis R.	356 28 3.1	- 38.9	+ 13.1	27 34.9	71 46 49.9
13	—	—	50.0	43.5	13 Scorpii c ²	310 46 22.4	- 299.3	+ 13.2	41 33.6	117 32 51.2
14	—	—	—	—	σ Scorpii R.	313 3 50.7	- 247.6	+ 12.9	59 52.8	115 14 32.0
15	—	29.89	49.7	43.4	5527 B.A.C.	359 2 38.6	- 35.2	+ 13.9	2 14.8	69 12 10.0
16	20	29.93	58.0	51.7	21 Virginis q	329 36 30.9	- 101.3	+ 12.1	34 59.0	98 39 25.8
17	—	—	—	—	38 Virginis R.	335 29 27.8	- 80.9	+ 12.0	28 15.8	92 46 9.0
18	—	—	57.3	51.2	μ Cassiopeiæ S.P.	103 58 34.4	+ 198.6	- 7.8	1 41.9	35 47 17.1
19	—	—	—	—	Polaris S.P.	69 41 16.6	+ 48.0	- 7.6	41 54.3	1 27 29.5
20	—	—	—	—	Spica R.	327 51 32.5	- 109.0	+ 13.6	49 54.4	100 24 30.4
21	—	29.93	57.0	51.3	ζ Virginis R.	338 23 59.9	- 72.9	+ 11.4	22 55.2	89 51 29.6
22	—	—	—	—	τ Boötis R.	356 25 34.1	- 38.4	+ 7.8	25 0.6	71 49 24.2
23	—	29.92	56.3	50.2	τ Virginis R.	340 30 0.1	- 67.7	+ 11.6	29 1.0	87 45 23.8
24	—	29.92	55.2	48.6	58 Hydræ R.	310 57 35.3	- 291.4 + 15.9	52 57.6	117 21 27.2	
25	—	—	—	—	..... R.	36.9				
26	—	—	—	—	β Boötis R.	19 12 9.7	- 11.1	+ 8.0	12 4.0	49 2 20.8
27	—	29.91	54.6	48.0	ε ¹ Libræ R.	319 2 23.8	- 166.9	+ 14.8	59 49.2	109 14 35.6
28	—	—	—	—	ε Draconis R.	37 42 30.5	+ 7.9 + 7.8	42 44.0	30 31 40.8	
29	—	—	—	—	..... R.	32.1				
30	—	29.90	53.9	45.8	κ Libræ R.	319 4 30.9	- 167.3	+ 14.2	1 54.7	109 12 30.1
31	—	—	—	—	θ Libræ R.	321 58 27.6	- 144.0	+ 13.9	56 14.2	106 18 10.6
32	—	—	—	—	51 Libr. (1st & 2d) ..	327 17 46.4	- 113.0	+ 13.6	16 4.6	100 58 20.2
33	—	—	52.8	44.3	δ Ophiuchi R.	334 56 24.1	- 83.7	+ 13.5	55 11.2	93 19 13.6
34	—	—	—	—	σ Scorpii R.	313 3 48.7	- 247.4	+ 13.0	59 51.1	115 14 33.7

May 20. Index Cor. - 3°.0; Run + 1°.0. An unfavourable night.

- 4 Ill defined.
8 Nearest division; light clouds.
11 Semi-diam. - 15' 10".8; Par. + 53' 42".5.
13 Very unsteady.
14 Nearest division.
18 Nearest division.

- 19 Hazy.
21 Nearest division.
25 Division above.
29 Division above.
31 Nearest division.
34 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	May 20	29.90	52.2	44.1	Antares	312 12 9.9	-264.8	+12.6	7 55.1	116 6 29.7
2	—	—	—	—	12 Ophiuchi	336 14 45.5	-79.8	+13.4	13 36.1	92 0 48.7
3	—	—	—	—	25 Scorpii	313 2 40.4	-248.1	+11.9	58 41.7	115 15 43.1
4	—	—	—	—	ε Herculis	9 23 5.1	-22.1	+14.7	22 55.3	58 51 29.5
5	—	—	—	—	36 Ophin. A (1st)	311 55 35.4	-271.9	+10.5	51 11.1	116 23 13.7
6	—	29.88	50.2	41.5	θ Ophiuchi	313 27 13.9	-241.4	+10.3	23 20.2	114 51 4.6
7	22	29.49	58.3	49.2	μ Cassiopeiæ S.P.	103 58 37.9	+196.5	-7.9	1 43.0	35 47 18.2
8	—	—	—	—	59 Virginis e	348 25 51.9	-50.8	+8.2	25 6.3	79 49 18.5
9	—	—	57.8	48.4	66 Virginis	333 51 4.5	-85.2	+12.1	49 48.4	94 24 36.4
10	—	—	—	—	74 Virginis b	332 45 5.5	-88.9	+12.5	43 45.9	95 30 38.9
11	—	—	—	—	82 Urs. Maj.	31 53 29.0	+1.9	-0.6	53 26.8	36 20 58.0
12	—	—	—	—	* 13 ^b 41 ^m 50 ^s ...	56 37 8.0	+28.8	-0.3	37 33.7	11 36 51.1
13	—	—	—	—	* 13 ^b 53 ^m 50 ^s ...	55 12 7.3	+27.0	-2.4	12 29.1	13 1 55.7
14	—	29.49	55.0	46.6	785 B.A.C. S.P.	106 50 42.1	+241.2	-0.8	54 39.4	38 40 14.6
15	—	—	—	—	β Urs. Min. R.	187 1 28.7	-24.4	-3.2	0 58.2	15 15 23.0
16	—	—	—	—	δ Boötis	227 54 15.7	+18.6	-9.2	54 21.8	56 8 46.6
17	—	—	—	—	ζ ¹ Libræ	322 3 55.7	-141.1	+14.4	1 45.6	106 12 39.2
18	—	29.50	54.0	46.1	α Cor. Bor. R.	234 33 16.9	+26.3	-11.0	33 28.7	62 47 53.5
19	23	29.36	58.9	50.8	γ Cassiopeiæ S.P.	98 16 5.6	+141.5	-9.2	18 14.9	30 3 50.1
20	27	29.43	57.5	49.7	49 Virginis g	328 17 50.1	-105.5	+13.1	16 15.1	99 58 9.7
21	—	—	—	—	A. Z. cciv. 16	46 41 2.4	+17.1	-5.2	41 11.3	21 33 13.5
22	—	29.43	56.4	49.7	ζ Virginis	338 24 0.7	-71.9	+11.2	22 56.6	89 51 28.2
23	28	29.61	60.8	50.2	74 Virginis b	332 45 6.1	-88.9	+12.3	43 46.3	95 30 38.5
24	—	—	—	—	4628 B.A.C.	13 37 34.2	-16.9	+2.8	37 17.2	54 37 7.6
25	—	—	—	—	.....	34.8				
26	—	—	—	—	A. Z. ec. 132	48 28 1.4	+19.2	-2.5	28 14.5	19 46 10.3
27	—	29.60	58.0	48.5	4731 B.A.C.	357 50 2.2	-36.2	+7.6	49 30.4	70 24 54.4
28	—	—	—	—	θ Boötis	30 45 31.5	+0.8	+1.8	45 31.0	37 28 53.8
29	—	—	—	—	4826 B.A.C.	31 46 21.9	+1.8	+2.2	46 23.0	36 28 1.8
30	—	—	—	—	58 Hydræ	310 52 33.9	-291.1	+16.5	47 56.7	117 26 28.1
31	—	—	—	—	.....	35.1				

May 22—28. Index Cor. - 3".2; Run + 1".0.

7 Nearest division.
 11 Nearest division.
 15 Very unsteady.
 17—18 Nearest division.
 19 Clouded over after this single observation.

21 Cloudy.
 22 Nearest division.
 25 Division above.
 26 Nearest division; bearing no illumination.
 31 Division above.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	" ' "	° ' "
1	May 28	29.62	56.0	47.5	2213 Gr.	62 44 13.5	+ 37.1	+ 2.0	44 49.2	5 29 35.6
2		—	—	—	5116 B.A.C.	41 0 39.6	+ 11.2	+ 5.4	0 53.1	27 13 31.7
3		—	55.7	48.5	5184 B.A.C.	322 43 36.2	- 136.6	+ 14.1	41 30.2	105 32 54.6
4	June 2	29.81	59.1	50.7	A. Z. exciv. 22...	52 12 12.0	+ 23.5	- 4.4	12 28.2	16 1 56.6
5		—	58.7	50.4	4781 B.A.C.	312 6 11.6	- 262.6	+ 17.1	2 3.0	116 12 21.8
6		29.81	58.0	49.9	4848 B.A.C.	326 39 8.5	- 114.6	+ 14.2	37 24.6	101 37 0.2
7		—	—	—	ξ Boötis (1st)...	357 57 3.1	- 36.1	+ 8.1	56 32.2	70 17 52.6
8		—	—	—	* 14 ^h 55 ^m 5 ^s	328 26 41.9	- 106.1	+ 13.8	25 6.6	99 49 18.2
9		—	—	—	2213 Gr.	62 44 15.7	+ 37.0	+ 0.7	44 50.0	5 29 34.8
10		29.82	56.7	51.4	ε Librae	328 27 55.0	- 105.8	+ 13.6	26 20.1	99 48 4.7
11		—	—	—	α Cor. Bor.	5 26 53.5	- 26.4	+ 8.6	26 32.8	62 47 52.0
12		—	—	—	θ Urs. Min.	56 3 35.0	+ 28.3	+ 3.6	4 4.3	12 10 20.5
13		29.82	56.1	48.7	κ Cor. Bor.	14 20 59.7	- 16.2	+ 8.2	20 48.6	53 53 36.2
14	3	29.92	62.1	56.7	A. Z. exciv. 22...	52 12 12.5	+ 23.3	- 4.6	12 28.3	16 1 56.5
15		29.92	62.0	—	4719 B.A.C.	309 43 5.8	- 321.8	+ 17.7	37 59.0	118 36 25.8
16		29.91	61.9	55.7	4776 B.A.C.	312 6 47.8	- 260.4	+ 17.1	2 41.6	116 11 43.2
17		—	—	—	4826 B.A.C.	31 46 22.7	+ 1.8	+ 0.8	46 22.3	36 28 2.5
18		—	—	—	54 Hydrae (1st) .	313 28 16.6	- 234.6	+ 16.5	24 35.9	114 49 48.9
19		—	—	—	4918 B.A.C.	38 7 9.2	+ 8.2	+ 1.2	7 15.7	30 7 9.1
20		—	—	—	44 Boötis i (2d)	26 27 30.3	- 3.5	+ 3.7	27 27.7	41 46 57.1
21		29.91	60.5	54.5	δ Boötis	12 5 57.1	- 18.6	+ 6.5	5 41.9	56 8 42.9
22		—	—	—	5116 B.A.C.	41 0 42.3	+ 11.2	+ 3.7	0 54.0	27 13 30.8
23		—	—	—	5177 B.A.C.	25 30 53.5	- 4.5	+ 6.0	30 51.9	42 43 32.9
24		29.92	59.8	52.6	5215 B.A.C.	309 59 10.5	- 316.0	+ 15.2	54 6.2	118 20 18.6
25		—	—	—	χ Herculis	21 5 54.8	- 9.0	+ 7.3	5 50.0	47 8 34.8
26		—	—	—	5312 B.A.C.	312 0 19.2	- 264.5	+ 14.4	56 5.9	116 18 18.9
27		29.93	59.1	52.4	ε Ophiuchi	333 55 26.4	- 85.6	+ 12.4	54 10.0	94 20 14.8
28	5	30.08	60.0	51.8	A. Z. cciv. 79 ...	45 15 57.6	+ 15.9	- 3.6	16 6.8	22 58 18.0
29		—	—	—	i Boötis	30 16 28.6	+ 0.3	- 0.6	16 25.3	37 57 59.5
30		—	—	—	θ Boötis	30 45 31.4	+ 0.8	- 0.1	45 28.9	37 28 55.9
31		30.08	58.4	51.1	108 Virginis	339 35 6.5	- 70.2	+ 11.4	34 4.4	88 40 20.4
32		—	—	—	4918 B.A.C.	38 7 11.0	+ 8.3	+ 0.7	7 17.1	30 7 7.7

June 2—5. Index Cor. — 3".3; Run + 1".0.

3 Nearest division.

31 Interrupted by clouds.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	June 5	30.07	57.7	50.8	β Boötis	19 12 14.9	- 11.1	+ 4.2	12 5.1	49 2 19.7
2	10	30.01	64.1	53.3	54 Hydræ (2d) ..	313 28 17.0	- 236.3	+ 16.8	24 34.9	114 49 49.9
3		—	—	—	4920 B.A.C.	312 36 28.4	- 252.2	+ 16.8	32 30.0	115 41 54.8
4		—	63.0	53.4	* 14 ^b 55 ^m 0 ^s ...	328 26 43.7	- 106.2	+ 13.5	25 8.0	99 49 16.8
5		—	—	—	* 15 ^b 12 ^m 30 ^s ...	62 48 52.0	+ 37.3	- 0.7	49 26.1	5 24 58.7
6		—	61.5	51.6	37 Libræ	328 41 59.6	- 105.4	+ 13.2	40 24.5	99 34 0.3
7		—	—	—	α Serpentis	345 8 10.5	- 57.6	+ 10.4	7 20.6	83 7 4.2
8		—	—	—	θ Libræ	321 58 28.5	- 142.8	+ 13.8	56 16.9	106 18 7.9
9		30.01	59.9	50.6	* 16 ^b 6 ^m 20 ^s	63 56 15.0	+ 39.0	+ 3.4	56 54.4	4 17 30.4
10	14	29.65	58.9	47.2	1 Scorpii <i>b</i>	312 59 45.1	- 245.1	+ 15.3	55 52.0	115 18 32.8
11		—	—	—	49 Libræ	322 10 16.7	- 140.8	+ 13.6	8 6.3	106 6 18.5
12		—	—	—	* 16 ^b 6 ^m 20 ^s	63 56 15.7	+ 38.9	+ 2.3	56 53.9	4 17 30.9
13		—	—	—	19 Urs. Min.	54 28 15.0	+ 26.3	+ 3.3	28 41.0	13 45 43.8
14		29.65	56.4	46.5	Antares	312 12 8.4	- 261.3	+ 13.7	7 57.9	116 6 26.9
15		—	—	—	5560 B.A.C.	39 21 46.2	+ 9.5	+ 5.1	21 57.9	28 52 26.9
16	16	29.92	61.8	51.6	γ S. L.	312 7 46.1	- 262.3	.....	13 32.9	115 0 51.9
17		29.88	58.0	49.4	27 Dracouis <i>f</i> ...	46 27 38.9	+ 17.1	+ 7.9	28 0.5	21 46 24.3
18		—	—	—	30 Draconis	29 3 25.6	- 1.0	+ 8.8	3 29.2	39 10 55.6
19		29.87	57.0	49.0	6108 B.A.C.	312 42 6.9	- 251.6	+ 8.3	38 0.1	115 36 24.7
20	17	29.81	62.0	54.4	ϵ Libræ	319 2 21.9	- 164.3	+ 15.3	59 49.4	109 14 35.4
21		—	—	—	ϵ Draconis	37 42 38.7	+ 7.8	+ 0.2	42 43.3	30 31 41.5
22		—	—	—	.....	40.4				
23		—	61.0	53.0	α Serpentis	345 8 12.8	- 57.1	+ 9.5	7 20.5	83 7 4.3
24		—	59.6	52.0	5453 B.A.C.	44 58 15.1	+ 15.4	+ 2.8	58 28.6	23 15 56.2
25		—	—	—	12 Ophiuchi	336 14 48.9	- 78.4	+ 10.7	13 36.9	92 0 47.9
26		—	—	—	5579 B.A.C.	320 49 13.0	- 150.3	+ 12.4	46 50.7	107 27 34.1
27		—	58.0	50.3	ϵ Herculis	9 23 14.4	- 21.7	+ 7.5	22 57.0	58 51 27.8
28		—	—	—	36 Ophiuchi (2d) ..	311 55 35.5	- 266.5	+ 11.4	51 16.4	116 23 8.4
29		29.81	57.2	50.5	γ N. L.	310 14 30.3	- 308.7	.....	49 38.0	117 24 46.8
30		29.80	56.8	50.6	ψ Draconis (2d) ..	50 27 33.5	+ 21.5	+ 8.3	27 59.9	17 46 24.9

June 10. Index Cor. - 3".3; Run + 1".0.

June 14. Index Cor. - 3".3; Run + 1".0. Un-

favourable night; hazy.

June 16. Index Cor. - 3".9; Run + 1".0. A cloudy

night. June 17. Index Cor. - 4".2; Run + 1".5.

1 Clouded over after this observation.

13 Nearest division.

15 Cloudy.

16 Semi-diam. + 15' 20".2; Par. + 54' 52".2;
great undulation.

18 Nearest division.

21 Light clouds.

22 Division above.

23 Nearest division; cloudy.

24 Nearest division.

29 Semi-diam. - 15' 30".5; Par. + 55' 51".2;
behind clouds.

30 Cloudy.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	June 25	30.15	68.5	65.4	20 Libræ	313 35 16.6	-229.5	+16.9	31 39.9	114 42 44.9
2		—	—	—	8 Boëtis	12 6 2.5	-18.3	+2.1	5 42.4	56 8 42.4
3		—	—	—	7 Cor. Bor.	9 3 26.7	-21.7	+3.0	3 3.3	59 11 21.5
4		—	—	—	5116 B.A.C.	41 0 48.0	+11.0	-1.8	0 53.2	27 13 31.6
5		30.15	68.0	64.8	41 Libræ	319 27 26.0	-159.0	+14.6	24 58.1	108 49 26.7
6		—	—	—	1 Scorpil b.	312 59 39.0	-240.5	+15.7	55 49.9	115 18 34.9
7		—	—	—	7 Serpentiis	354 23 6.3	-40.6	+6.7	22 29.1	73 51 55.7
8		30.16	67.3	63.7	13 Scorpil c ² ...	310 46 10.5	-289.5	+15.3	41 32.5	117 32 52.3
9		—	—	—	5487 B.A.C.	309 22 20.0	-331.1	+14.8	17 0.2	118 57 24.6
10		—	66.9	62.5	7 Scorpil	310 24 31.0	-299.9	+14.2	19 41.0	117 54 43.8
11		—	—	—	15 Ophiuchi	315 22 57.1	-204.1	+12.9	19 42.6	112 54 42.2
12		—	66.2	61.5	5673 B.A.C.	312 43 13.1	-247.3	+12.8	39 15.4	115 35 9.4
13		—	—	—	7 Ophiuchi	322 44 1.5	-135.6	+10.8	41 52.2	105 32 32.6
14		30.16	65.8	59.8	8 Ophiuchi	313 27 11.0	-234.6	+11.2	23 24.1	114 51 0.7
15		—	—	—	11 Draconis	33 31 22.2	+3.5	+5.2	31 27.1	34 42 57.7
16		30.17	65.0	60.5	29 Draconis	52 32 50.2	+23.8	+5.2	33 15.9	15 41 8.9
17	27	30.00	73.1	69.6	45 Boëtis c	3 40 51.5	-27.6	+3.4	40 20.3	64 34 4.5
18		—	73.0	69.3	7 Urs. Min.	50 34 58.2	+21.0	-3.2	35 8.7	17 39 16.1
19		—	—	—	7 ⁵ Serpentiis	354 50 57.0	-39.4	+6.1	50 16.7	73 24 8.1
20		—	—	—	e Serpentiis	343 10 12.4	-59.7	+8.9	9 14.4	85 5 10.4
21		—	71.9	67.3	17 Urs. Min.	54 13 11.3	+25.2	-1.2	13 29.0	14 0 55.8
22		—	—	—	5453 B.A.C.	44 58 17.4	+15.0	+0.2	58 26.3	23 15 58.5
23		—	—	—	7 Scorpil	310 24 25.7	-296.2	+14.3	19 36.3	117 54 48.5
24		30.00	71.0	65.6	5579 B.A.C.	320 49 10.3	-146.9	+12.3	46 48.2	107 27 36.6
25	28	30.07	64.8	55.8	20 Libræ	313 35 23.3	-233.3	+16.9	31 39.6	114 42 45.2
26		—	—	—	5 Serpentiis	340 34 17.4	-67.3	+9.4	33 12.1	87 41 12.7
27		—	—	—	7 Urs. Min.	50 34 59.6	+21.7	-3.4	35 10.7	17 39 14.1
28		30.08	63.0	54.4	8 Serpentiis	349 16 37.2	-49.7	+7.3	15 48.1	78 58 36.7
29		—	—	—	5249 B.A.C.	41 17 3.4	+11.5	-1.4	17 6.9	26 57 17.9
30		—	—	—	49 Libræ	322 10 18.2	-141.0	+13.4	8 3.5	106 6 21.3
31		30.09	62.0	53.3	17 Urs. Min.	54 13 14.4	+26.0	-1.4	13 32.8	14 0 52.0
32		—	—	—	5453 B.A.C.	44 58 18.9	+15.5	-0.1	58 28.1	23 15 56.7
33		—	—	—	7 Draconis	40 4 48.4	+10.3	+0.7	4 52.1	28 9 32.7

June 25. Index Cor. - 4".2; Run + 1".5.

28. Index Cor. - 7".2; Run + 1".5.

June 27. Index Cor. - 7".3; Run + 1".5.

Unfavourable windy night; stars very unsteady.

3 Nearest division.

6 Great undulation.

12 * (8.0) about 40" nf. 10°.

13 Nearest division.

18 Cloudy.

25 Very unsteady.

28 North star.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	June 28	30.10	61.5	52.7	τ Scorpii	310 24 40.7	-305.4	+14.3	19 42.3	117 54 42.5
2		—	61.1	52.6	5579 B.A.C.	320 49 15.6	-151.3	+12.2	46 49.1	107 27 35.7
3		30.10	60.8	52.6	5673 B.A.C.	312 43 21.4	-251.3	+12.9	39 16.8	115 35 8.0
4		—	—	—	ϵ Urs. Min.	60 29 55.5	+34.2	+2.2	30 24.7	7 44 0.1
5		—	—	—	ζ Draconis	44 7 44.6	+14.6	+2.9	7 55.7	24 6 29.1
6		30.11	59.9	51.1	5895 B.A.C.	15 19 40.0	-15.2	+4.9	19 22.4	52 55 2.4
7	July 1	30.09	62.2	52.7	δ Serpentis	349 16 38.1	-49.9	+6.9	15 48.7	78 58 36.1
8		—	—	—	ι Scorpii b	312 59 48.6	-246.3	+15.8	55 51.1	115 18 33.7
9		30.09	61.1	51.5	γ Serpentis	354 23 11.8	-41.6	+5.9	22 30.2	73 51 54.6
10		—	—	—	θ Draconis	37 11 29.2	+7.3	-0.9	11 29.1	31 2 55.7
11		—	—	—	ϵ Ophiuchi	333 55 31.4	-86.3	+10.3	54 8.7	94 20 16.1
12		—	—	—	20 Urs. Min.	53 48 1.0	+25.7	-1.1	48 19.6	14 26 5.2
13		30.08	59.9	49.8	5527 B.A.C.	359 2 51.1	-34.9	+5.3	2 15.5	69 12 9.3
14		30.09	59.0	49.9	19 Draconis h^1 ..	43 35 33.7	+14.1	+1.4	35 42.5	24 38 42.3
15		—	—	—	ζ Draconis	44 7 44.3	+14.7	+2.0	7 54.9	24 6 29.9
16		—	—	—	5895 B.A.C.	15 19 40.3	-15.3	+4.1	19 22.1	52 55 2.7
17		—	—	—	ν^1 Draconis	33 31 26.0	+3.6	+3.3	31 26.4	34 42 58.4
18		30.09	58.0	49.4	μ Herculis	6 3 17.9	-25.9	+5.1	2 51.2	62 11 33.6
19	2	30.10	63.9	55.0	η Cor. Bor.	9 3 29.7	-22.1	+1.8	3 3.6	59 11 21.2
20		—	—	—	δ Serpentis	349 16 32.1	-49.7	+6.8	15 42.9	78 58 41.9
21		—	—	—	α Serpentis	345 8 14.4	-57.6	+7.9	7 18.9	83 7 5.9
22		30.10	61.9	52.9	3 Scorpii	313 24 38.4	-238.3	+15.6	20 48.8	114 53 36.0
23		—	—	—	θ Draconis	37 11 28.1	+7.3	-1.2	11 27.8	31 2 57.0
24		—	—	—	ϵ Ophiuchi	333 55 29.4	-86.2	+10.2	54 6.7	94 20 18.1
25		—	—	—	η Urs. Min.	54 19 10.6	+26.3	-1.0	19 28.9	13 54 55.9
26		30.11	59.8	50.6	1496 B.A.C. ... S.P.	84 10 53.3	+80.6	+1.1	12 8.5	15 57 43.7
27		—	59.1	50.4	9 Aurigæ ... S.P.	106 46 20.2	+243.0	+3.9	50 20.7	38 35 55.9
28		—	58.0	50.3	69 Herculis e	15 41 24.3	-14.9	+3.6	41 6.6	52 33 18.2
29		—	—	—	ν^2 Draconis	33 30 46.0	+3.6	+3.0	30 46.0	34 43 38.8
30		30.11	57.4	49.6	84 Herculis	2 38 32.0	-30.2	+5.1	38 1.2	65 36 23.6
31	5	29.94	67.3	61.2	5177 B.A.C.	25 31 3.5	-4.4	-1.3	30 51.5	42 43 33.3
32		—	—	—	5249 B.A.C.	41 17 4.8	+11.5	-2.8	17 7.3	26 57 17.5

July 1. Index Cor. - 6".9; Run + 1".5.
cloudy night.

July 2. Index Cor. - 6".8; Run + 1".5. A
July 5. Index Cor. - 6".6; Run + 1".5.

1 Very unsteady.
7 North star.
13 Cloudy.

20 South star.
25 Cloudy.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refrac- tion.	Reduc- tion to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	July 5	29.94	67.0	60.2	53 12 B.A.C.	3 12 0 18.1	-260.4	+15.7	56 6.9	116 18 17.9
2		—	—	—	14 Hercules	22 26 59.8	-7.5	+0.2	26 46.5	45 47 38.3
3	8	29.58	58.0	50.8	ε Serpentes	343 10 15.8	-60.9	+7.8	9 16.6	85 5 8.2
4		—	—	—	5 Hercules	356 28 13.6	-37.9	+4.5	27 35.0	71 46 49.8
5	9	29.76	60.4	51.7	θ Draconis	37 11 27.6	+7.2	-2.6	11 26.6	31 2 58.2
6		—	—	—	η Urs. Min.	54 19 11.6	+26.0	-2.6	19 28.8	13 54 56.0
7		—	59.3	51.5	5560 B.A.C.	39 21 55.8	+9.5	-1.6	21 58.3	28 52 26.5
8		—	58.2	51.2	η Ophiuchi	322 44 4.0	-136.4	+10.4	41 51.7	105 32 33.1
9		—	57.7	50.8	α Ophiuchi	350 55 20.1	-46.7	+5.1	54 32.6	77 19 52.2
10		29.76	57.1	50.2	84 Hercules	2 38 35.6	-29.8	+3.6	38 3.0	65 36 21.8
11	10	29.84	62.3	56.6	κ Cor. Bor.	14 21 10.6	-16.0	+0.1	20 49.2	53 53 35.6
12		—	62.0	56.0	τ Cor. Bor.	15 6 19.8	-15.2	+0.4	5 59.5	53 8 25.3
13		—	—	—	γ Hercules	357 44 43.6	-36.1	+4.0	44 5.5	70 30 19.3
14		29.84	61.5	54.7	5611 B.A.C.	55 57 51.7	+27.9	-2.1	58 12.5	12 16 12.3
15	12	29.71	63.4	58.4	θ Draconis	37 11 31.8	+7.1	-3.2	11 30.6	31 2 54.2
16	14	29.91	65.3	58.8	φ Hercules	23 33 32.7	-6.4	-1.7	33 18.3	44 41 6.5
17		—	—	—	ψ Ophiuchi	318 35 17.4	-167.6	+13.3	32 37.4	109 41 47.4
18		—	—	—	Antares	312 12 3.7	-257.1	+14.8	7 56.3	116 6 28.5
19		—	64.9	58.2	τ Scorp.	310 24 28.9	-300.1	+14.9	19 37.7	117 54 47.1
20		—	64.7	58.0	25 Scorp.	313 2 36.7	-240.9	+13.7	58 44.5	115 15 40.3
21		—	64.2	57.8	δ N. L.	311 0 52.7	-284.4	.....	36 5.4	116 38 19.4
22		—	—	—	61 Hercules c ...	13 51 59.1	-16.5	+0.8	51 38.2	54 22 46.6
23		—	—	—	5800 B.A.C.	311 30 24.5	-272.7	+12.5	25 58.6	116 48 26.2
24		—	64.0	57.5	θ Ophiuchi	313 27 9.9	-233.8	+11.6	23 22.6	114 51 2.2
25		—	—	—	45 Ophiuchi d ...	308 36 21.6	-359.6	+12.2	30 28.8	119 43 56.0
26		29.91	63.2	57.1	μ Hercules	233 56 44.9	+25.4	-2.1	57 3.0	62 11 27.8
27		—	—	—	35 Draconis ...	184 47 24.4	-26.9	-0.4	46 52.1	13 1 16.9
28		29.92	62.8	55.7	41 Draconis ...	181 47 25.4	-30.7	-1.1	46 48.6	10 1 13.4
29		—	—	—	2095 B.A.C. ...	78 30 55.1	+64.7	+2.6	31 56.9	10 17 32.1
30		29.91	62.0	55.3	12 Lynceis ...	98 37 9.6	+145.3	+4.7	39 34.5	30 25 9.7

July 8 Index Cor. - 6".2; Run + 1".5.

July 9. Index Cor. - 6".0; Run + 1".5. A cloudy

night.

July 10. Index Cor. - 5".9; Run + 1".5.

Sky overspread with light clouds.

July 12. Index Cor. - 5".6; Run + 1".5.

July 14. Index Cor. - 5".8; Run + 1".6.

4 Clouded over.

8 Nearest division.

10 Nearest division.

15 Clouded over after this single observation.

16 Nearest division.

21 Semi-diam. - 15' 26".8; Par. + 55' 29".4;
undulating.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	July 15	29.76	67.0	61.8	5560 B.A.C.	39 21 57.2	+ 9.3	- 2.9	21 58.3	28 52 26.5
2					* 4 ^h 41 ^m 20 ^s S.P.	72 28 24.1	+ 51.5	- 2.3	29 6.9	4 14 42.1
3					1522 B.A.C. ... S.P.	91 35 57.1	+ 103.9	0.0	37 35.4	23 23 10.6
4		29.75	66.1	60.0	1565 B.A.C. ... S.P.	79 10 13.4	+ 65.3	- 1.0	11 11.9	10 56 47.1
5					* 17 ^h 7 ^m 10 ^s ...	63 7 29.8	+ 36.8	- 1.7	7 59.8	5 6 25.0
6					θ Ophiuchi	313 27 4.2	- 231.3	+ 11.7	23 19.4	114 51 5.4
7		29.74	65.9	59.9	45 Ophiuchi d ...	308 36 18.2	- 355.7	+ 12.3	30 29.3	119 43 55.5
8					γ ² Draconis	33 30 48.0	+ 3.5	- 0.6	30 45.3	34 43 39.5
9		29.73	65.4	59.1	29 Draconis	52 32 56.6	+ 23.5	- 0.8	33 14.3	15 41 10.5
10					6059 B.A.C.	311 34 19.9	- 268.9	+ 9.7	29 54.6	116 44 30.2
11		29.72	65.0	58.4	Δ S. L.	309 0 38.4	- 341.7	.....	7 7.1	118 7 17.7
12					100 Herculis	4 19 55.7	- 27.2	+ 2.0	19 24.6	63 55 0.2
13					6201 B.A.C. (1st)	319 36 48.1	- 157.5	+ 6.9	34 12.2	108 40 12.6
14		29.71	64.1	57.3	6288 B.A.C.	49 40 53.1	+ 20.3	+ 1.0	41 8.8	18 33 16.0
15					6347 B.A.C.	317 7 27.6	- 182.0	+ 5.8	4 26.3	111 9 58.5
16					φ Sagittarii	311 11 2.5	- 279.0	+ 5.9	6 23.8	117 8 1.0
17					6400 B.A.C.	315 17 23.2	- 204.5	+ 5.1	13 58.7	113 0 26.1
18		29.71	63.5	56.4	σ Sagittarii	311 50 33.9	- 264.0	+ 5.0	46 9.2	116 28 15.6
19	16	29.90	64.1	53.6	β ¹ Scorpii	318 52 36.4	- 166.5	+ 13.9	49 58.5	109 24 26.3
20					δ Ophiuchi	334 56 31.1	- 82.1	+ 9.2	55 12.6	93 19 12.2
21		29.91	63.7	53.4	σ Scorpii	313 3 46.8	- 242.8	+ 14.9	59 52.4	115 14 32.4
22					γ Urs. Min.	54 19 14.9	+ 26.0	- 3.9	19 30.7	13 54 54.1
23					* 4 ^h 30 ^m 30 ^s S.P.	72 9 15.0	+ 52.1	- 2.9	9 57.9	3 55 33.1
24		29.91	61.8	52.8	5673 B.A.C.	312 43 13.4	- 249.7	+ 13.4	39 12.0	115 35 12.8
25					5752 B.A.C.	35 8 32.6	+ 5.2	- 1.9	8 29.3	33 5 55.5
26		29.92	60.3	52.0	μ Herculis ... R.	233 56 46.4	+ 25.6	- 1.7	57 4.8	62 11 29.6
27					ξ Herculis ... R.	232 29 17.8	+ 23.9	- 1.5	29 33.9	60 43 58.7
28					μ ¹ Sagittarii ...	317 11 56.7	- 184.3	+ 7.6	8 54.5	111 5 30.3
29					6245 B.A.C.	356 0 34.6	- 39.0	+ 2.5	59 52.2	62 14 32.6
30					* 18 ^h 32 ^m 0 ^s ...	16 38 46.4	- 13.7	+ 1.1	38 27.3	51 35 57.5
31		29.93	59.2	50.8	φ Sagittarii	311 11 0.8	- 284.5	+ 5.9	6 16.4	117 8 8.4
32					σ Sagittarii	311 50 39.4	- 269.1	+ 5.1	46 9.5	116 28 15.3
33			59.0	50.9	Δ S. L.	309 17 31.4	- 339.7	.....	24 56.8	117 49 28.0
34					ω Aquilæ	349 35 40.3	- 49.2	+ 1.5	34 46.7	78 39 38.1

July 15. Index Cor. - 5".9; Run + 1".6.

16. Index Cor. - 6".1; Run + 1".6.

2 Nearest division.

11 Semi-diam. + 15' 39".5; Par. + 56' 36".6;
great undulation.

12 North star.

13 * (8.0) 6" nf. 2^d.

16 Flickering.

21 Nearest division.

25 Nearest division.

30 Nearest division.

32 Very unsteady.

33 Semi-diam. + 15' 51".9; Par. + 57' 18".5.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.	
			In.	Out.							
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "	
1	July 16	29.93	58.7	50.7	6657 B.A.C.	2 54 19.1	-29.6	+	1.3	53 44.5	65 20 40.3
2		—	—	—	52 Sagittarii h^2 .	313 6 43.1	-243.6	+	1.4	2 35.3	115 11 49.5
3		—	—	—	16 Cygni c	28 26 4.2	-1.6	+	2.1	25 58.9	39 48 25.9
4		29.94	58.3	50.4	59 Sagittarii b...	310 46 37.4	-295.3	-	0.4	41 36.1	117 32 48.7
5	17	30.01	61.9	51.9	26 Draconis.....	40 13 27.6	+10.4	-	1.3	13 30.0	28 0 54.8
6		—	—	—	87 Herculis.....	3 55 24.8	-28.3	+	1.7	54 52.1	64 19 32.7
7		30.00	61.0	51.9	4 Sagittarii	314 30 8.5	-220.1	+	9.0	26 31.2	113 47 53.6
8		—	—	—	6138 B.A.C.	312 11 31.1	-261.7	+	8.7	7 12.4	116 7 12.4
9		—	—	—	6201 B.A.C.	319 36 52.3	-161.2	+	6.9	34 12.4	108 40 12.4
10		—	—	—	λ Sagittarii	312 48 46.3	-249.4	+	7.2	44 37.5	115 29 47.3
11		30.00	59.8	51.2	1 Aquilæ	329 55 40.5	-100.4	+	4.6	53 58.7	98 20 26.1
12		—	—	—	6386 B.A.C.	317 51 50.7	-177.8	+	5.1	48 52.4	110 25 32.4
13		—	—	—	ϵ Aquilæ	353 7 46.3	-43.4	+	1.7	6 59.3	75 7 25.5
14		29.99	58.5	51.4	ρ^2 Sagittarii	319 42 50.8	-160.2	+	2.3	40 7.6	108 34 17.2
15		—	—	—	8 Vulpeculæ	2 43 29.9	-29.9	+	1.0	42 55.9	65 31 28.9
16		—	—	—	52 Sagittarii h^2 .	313 6 41.7	-243.3	+	1.4	2 34.1	115 11 50.7
17		—	—	—	16 Cygni c	28 26 3.1	-1.6	+	1.8	25 57.4	39 48 27.4
18		—	58.0	52.0	59 Sagittarii b...	310 46 35.6	-294.7	-	0.3	41 34.9	117 32 49.9
19		29.99	58.0	51.6	δ S. L.	311 27 29.2	-278.0	.....	.....	36 21.3	115 38 3.5
20		—	—	—	6980 B.A.C.	38 26 21.9	+8.6	+	3.1	26 27.8	29 47 57.0
21		—	—	—	3212 Gr.	62 28 10.0	+36.8	+	5.2	28 46.8	5 45 38.0
22		29.98	57.6	51.4	* 20 ^h 29 ^m 0 ^s	62 51 51.2	+37.4	+	5.6	52 28.6	5 21 56.2
23	18	29.93	65.0	57.0	ϵ Ophiuchi	333 55 29.1	-84.8	+	9.2	54 7.4	94 20 17.4
24		—	—	—	β Herculis	0 3 25.0	-33.0	+	2.4	2 49.2	68 11 35.6
25		—	—	—	5560 B.A.C.	39 21 58.7	+9.4	-	3.5	21 58.9	28 52 25.9
26		—	63.0	56.1	5709 B.A.C.	313 26 6.2	-235.0	+	13.0	22 18.3	114 52 6.5
27		—	—	—	5797 B.A.C.	36 41 54.9	+6.7	-	2.3	41 53.6	31 32 31.2
28		—	—	—	θ Ophiuchi	313 27 10.9	-235.0	+	11.7	23 22.0	114 51 2.8
29		—	61.8	55.2	β Draconis	30 39 7.1	+0.7	-	1.2	39 0.0	37 35 24.8
30		—	—	—	β Ophiuchi.....	342 53 21.4	-61.7	+	4.8	52 17.7	85 22 7.1
31		—	61.0	54.6	μ^1 Sagittarii	317 11 56.3	-183.3	+	7.6	8 54.9	111 5 29.9
32		—	—	—	6288 B.A.C.	49 40 52.3	+20.6	0.0	41	6.9	18 33 17.9
33		—	—	—	α Lyrae	16 53 51.6	-13.4	+	0.5	53 32.0	51 20 52.8

July 17. Index Cor. - 6".2; Run + 1".6.

July 18. Index Cor. - 6".3; Run + 1".6.

5 Nearest division.

10 Nearest division.

13 Sky overspread with light clouds.

19 Semi-diam. + 16' 2".6; Par. + 57' 32".9.

25 Light clouds.

29 Nearest division.

30 Nearest division; sky overspread with clouds.

33 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	July 18	29.93	60.2	52.8	111 Herculis.....	356 16 34.7	-38.5	+ 1.6	15 52.0	71 58 32.8
2	25	29.85	69.7	58.0	β Herculis	0 3 27.1	-32.8	+ 1.4	2 49.7	68 11 35.1
3					5611 B.A.C.....	55 57 55.0	+ 27.7	- 4.9	58 12.7	12 16 12.1
4					5658 B.A.C.....	33 54 32.2	+ 3.9	- 4.0	54 26.3	34 19 58.5
5			67.0	56.7	19 Draconis λ^1 ..	43 35 40.2	+ 13.8	- 4.4	35 44.0	24 38 40.8
6					5797 B.A.C.....	36 41 55.8	+ 6.7	- 3.8	41 53.4	31 32 31.4
7					* 17 ^h 20 ^m 0 ^s	67 32 9.2	+ 43.9	- 3.1	32 44.7	0 41 40.1
8					ν^2 Draconis.....	33 30 51.1	+ 3.5	- 3.1	30 46.0	34 43 38.8
9			64.2	54.4	3 Sagittarii	310 33 3.9	-298.0	+ 10.9	28 11.7	117 46 13.1
10			63.9	54.3	4 Sagittarii	314 30 7.8	-217.8	+ 9.2	26 33.5	113 47 51.3
11		29.85	63.2		6138 B.A.C.....	312 11 27.5	-259.0	+ 9.0	7 12.1	116 7 12.7
12					109 Herculis R.	240 2 40.8	+ 33.2	- 0.3	3 8.5	68 17 33.3
13					α Lyrae	16 53 54.1	- 13.4	- 1.4	53 34.4	51 20 50.4
14		29.86	61.8	52.8	ϵ Aquilæ	353 7 48.7	- 43.1	+ 0.2	7 0.7	75 7 24.1
15			61.3	53.1	6547 B.A.C.....	6 39 17.4	- 24.8	- 0.8	38 46.0	61 35 38.8
16	26	29.99	68.3	57.6	41 Herculis	344 37 28.6	- 57.9	+ 5.0	36 30.5	183 37 54.3
17					1522 B.A.C...S.P.	91 35 57.0	+105.4	- 1.1	37 35.9	23 23 11.1
18					1550 B.A.C...S.P.	81 56 29.8	+ 73.0	- 2.5	57 35.0	13 43 10.2
19					ϵ Urs. Min.	60 30 2.9	+ 33.7	- 4.3	30 26.7	7 43 58.1
20			66.7	57.0	36 Ophiu. A (2d)	311 55 32.5	-264.4	+ 12.7	51 15.3	116 23 9.5
21					5858 B.A.C.....	313 21 0.9	-236.5	+ 11.9	17 10.9	114 57 13.9
22					* 5 ^h 22 ^m 40 ^s S.P.	70 55 48.6	+ 49.7	- 3.0	56 29.8	2 42 5.0
23					ν^1 Draconis	33 31 32.0	+ 3.5	- 3.3	31 26.9	34 42 57.9
24		29.99	65.0	56.3	* 17 ^h 36 ^m 50 ^s ...	62 57 33.3	+ 37.2	- 3.1	58 2.3	5 16 22.5
25		30.00	64.0	55.4	41 Draconis...R.	181 47 21.7	- 30.8	+ 2.3	46 48.0	10 1 12.8
26					α Lyrae.....R.	223 6 18.1	+ 13.4	+ 1.6	6 27.7	51 20 52.5
27		30.01	63.1	54.0	6447 B.A.C.....	321 44 4.2	-143.5	+ 3.9	41 36.8	106 32 48.0
28	28	30.00	69.2	64.5	κ Ophiuchi	347 51 27.1	- 51.1	+ 3.8	50 34.1	80 23 50.7
29			69.0	64.0	η Ophiuchi	322 44 2.3	- 134.0	+ 10.1	41 52.2	105 32 32.6
30					ξ Ophiuchi	317 20 4.4	- 179.3	+ 11.0	17 10.1	110 57 14.7
31		30.00	68.0	61.0	22 Camelop. S.P.	101 55 23.7	+172.2	+ 1.4	58 11.4	33 43 46.6

July 25. Index Cor. - 5".7; Run + 1".0.

July 26. Index Cor. - 5".6; Run + 0".9.

July 28. Index Cor. - 6".0; Run + 1".0. The stars unsteady; hazy.

2 Nearest division.
11 Extremely faint.12 Unsteady.
26 Unsteady.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	"	"
1	July 29	30.13	71.3	65.5	1496 B.A.C....S.P.	84 11 0.9	+ 78.2	- 2.8	12 10.2	15 57 45.4
2		—	—	—	1550 B.A.C....S.P.	81 56 30.9	+ 72.2	- 2.9	57 34.2	13 43 9.4
3		—	—	—	63 Herculis.....	2 40 1.0	- 29.3	+ 0.1	39 25.5	65 34 59.3
4		—	70.5	64.0	θ Ophiuchi.....	313 27 7.4	- 232.5	+ 12.0	23 21.1	114 51 3.7
5		—	—	—	22 Camelop. S.P.	101 55 22.4	+ 172.0	+ 1.3	58 9.5	33 43 44.7
6		—	—	—	α Aurigæ....S.P.	108 24 32.5	+ 269.5	+ 2.8	28 58.4	40 14 33.6
7		—	69.8	63.5	37 Herculis.....	3 55 26.1	- 27.8	- 0.6	54 51.5	64 19 33.3
8		—	—	—	ν Ophiuchi.....	328 31 2.9	- 104.1	+ 6.1	29 18.8	99 45 6.0
9		—	—	—	100 Herculis....	4 19 43.5	- 27.3	- 0.8	19 9.0	63 55 15.8
10		—	—	—	6201 B.A.C. (2d)	319 36 59.4	- 158.0	+ 6.9	34 22.4	108 40 2.4
11		—	68.9	62.6	χ Draconis.....	50 54 20.9	+ 21.7	- 3.1	54 33.1	17 19 51.7
12		—	—	—	6368 B.A.C.	33 21 20.2	+ 3.3	- 3.0	21 14.5	34 53 10.3
13		30.13	68.2	62.1	γ Aquilæ.....	332 14 12.1	- 90.1	+ 2.2	12 37.7	96 1 47.1
14		—	—	—	6547 B.A.C.	6 39 17.4	- 24.6	- 1.8	38 44.5	61 35 40.3
15		30.14	67.8	61.6	α Aquilæ.....	349 35 42.1	- 48.5	- 0.8	34 46.7	78 39 38.1
16		—	67.5	61.4	β Cygni (2d)....	5 54 53.8	- 25.5	- 2.1	54 19.9	62 20 4.9
17	30	30.20	73.0	66.4	5752 B.A.C.	35 8 36.0	+ 5.1	- 4.8	8 30.6	33 5 54.2
18		—	—	—	36 Ophiu. A (1st)	311 55 23.4	- 261.4	+ 12.8	51 8.4	116 23 16.4
19		—	—	—	5858 B.A.C.	313 20 58.1	- 234.0	+ 11.9	17 9.7	114 57 15.1
20		—	72.0	65.1	21 Camelop. S.P.	96 20 56.3	+ 128.7	+ 0.2	22 58.9	28 8 34.1
21		—	—	—	* 1 ^h 36 ^m 50 ^s ...	62 57 34.9	+ 36.8	- 4.0	58 1.8	5 16 23.0
22		—	—	—	6059 B.A.C.	311 34 20.3	- 270.1	+ 10.2	29 53.8	116 44 31.0
23		30.20	70.8	64.0	ψ ² Draconis.....	50 15 16.5	+ 21.0	- 4.0	15 27.1	17 58 57.7
24		—	—	—	6201 B.A.C. (2d).	319 36 59.7	- 158.3	+ 6.9	34 22.2	108 40 2.6
25		—	—	—	λ Sagittarii.....	312 48 42.0	- 245.1	+ 7.6	44 57.7	115 29 47.1
26		30.19	69.4	62.1	6338 B.A.C.	312 46 11.5	- 246.1	+ 6.8	42 6.0	115 32 18.8
27		—	—	—	ν ² Lyrae.....	10 38 9.8	- 20.1	- 2.1	57 41.8	57 36 43.0
28		—	—	—	17 Lyrae.....	10 31 34.8	- 20.2	- 2.3	31 6.1	57 43 18.7
29		—	—	—	24 Aquilæ.....	338 20 33.9	- 72.2	+ 0.1	19 15.4	89 55 9.4
30		—	—	—	δ Aquilæ.....	341 5 32.0	- 65.5	- 0.6	4 19.5	87 10 5.3
31		30.19	67.2	60.4	ε ² Cygni.....	29 40 3.6	- 0.3	- 2.6	39 54.2	38 34 30.6
32	31	30.13	75.0	71.2	19 Draconis h ¹ ..	43 35 42.4	+ 13.5	- 5.4	35 43.9	24 38 40.9

July 29. Index Cor. - 6".3; Run + 1".1.

July 30. Index Cor. - 6".5; Run + 1".1.

July 31. Index Cor. - 6".8; Run + 1".2.

9 South star.
22 hardly visible.25 Nearest division.
26 Very faint.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Aug. 1	30.06	76.8	69.5	5709 B.A.C.	313 25 58.3	-229.5	+ 13.2	22 15.2	114 52 9.6
2					63 Herenlis	2 40 2.2	-29.0	- 0.4	39 25.8	65 34 59.0
3		30.06	76.0	68.8	5846 B.A.C.	313 32 46.5	-228.0	+ 12.0	29 4.2	114 45 20.6
4					* 5 ^h 24 ^m 40 ^s S.P.	70 55 51.6	+ 48.6	- 4.0	56 29.4	2 42 4.6
5					26 Draconis.....	40 13 33.0	+ 10.1	- 4.9	13 30.9	28 0 53.9
6					μ Herculis	6 3 25.5	-25.0	- 1.4	2 51.7	62 11 33.1
7					63 Ophiuchi	313 26 58.7	-230.5	+ 9.9	23 11.6	114 51 13.2
8		30.06	74.2	66.8	ν Ophiuchi	328 31 1.2	-103.2	+ 6.0	29 17.2	99 45 7.6
9					6138 B.A.C.	312 11 20.9	-254.3	+ 9.2	7 9.1	116 7 15.7
10					41 Draconis.....	58 12 51.9	+ 30.2	- 3.9	13 11.9	10 1 12.9
11		30.05	73.3	66.3	χ Draconis	50 54 22.5	+ 21.5	- 3.9	54 32.9	17 19 51.9
12					* 18 ^h 39 ^m 50 ^s ...	64 43 45.1	+ 39.1	- 2.7	44 14.2	3 30 10.6
13		30.05	72.4	65.4	ζ Sagittarii	308 15 42.4	-369.1	+ 5.6	9 32.1	120 4 52.7
14					6567 B.A.C.	9 39 4.3	-20.9	- 2.7	38 33.5	58 35 51.3
15					59 Draconis.....	54 33 13.1	+ 25.8	- 2.5	33 30.2	13 40 54.6
16					β Cygni (1st) ...	5 54 36.6	-25.2	- 2.8	54 1.5	62 20 23.3
17		30.05	71.0	65.2	θ Cygni	28 7 59.2	- 1.8	- 3.1	7 48.0	40 6 36.8
18	2	29.99	78.2	70.2	36 Ophiu. A (2d)	311 55 27.3	-257.3	+ 12.9	51 15.8	116 23 9.0
19					5884 B.A.C.	308 44 25.1	-346.3	+ 13.0	38 44.4	119 35 40.4
20		29.99	77.7	69.7	β Draconis	30 39 10.3	+ 0.6	- 4.6	38 58.9	37 35 25.9
21					63 Ophiuchi	313 26 57.0	-228.7	+ 9.9	23 11.5	114 51 13.3
22		29.99	76.8	70.0	6108 B.A.C.	312 41 59.3	-241.9	+ 9.4	38 0.1	115 36 24.7
23					2 Lyncis.....S.P.	99 8 44.7	+145.5	+ 0.9	11 3.6	30 56 38.8
24					6245 B.A.C.	356 0 36.3	-37.7	- 0.6	59 51.0	72 14 33.8
25		29.99	75.8	67.5	42 Draconis.....	43 42 48.3	+ 13.7	- 4.3	42 51.2	24 31 33.6
26					6447 B.A.C.	321 43 56.4	-139.7	+ 3.8	41 33.0	106 32 51.8
27		29.99	74.7	66.8	6505 B.A.C.	312 52 4.6	-240.4	+ 4.6	48 2.1	115 26 22.7
28					6567 B.A.C.	9 39 3.1	-20.8	- 3.0	38 31.9	58 35 52.9
29		29.99	73.8	66.5	δ Aquilæ	341 5 30.9	-64.3	- 0.9	4 18.6	87 10 6.2
30	4	30.12	75.9	70.9	5752 B.A.C.	35 8 36.0	+ 5.0	- 5.6	8 29.3	33 5 55.5
31					α Herculis (2d) .	352 48 37.5	-42.5	+ 1.4	47 50.3	75 26 34.5
32		30.12	75.1	70.0	5884 B.A.C.	308 44 25.1	-347.8	+ 13.1	38 43.2	119 35 41.6
33					β Draconis	30 39 11.8	+ 0.6	- 4.9	39 0.3	37 35 24.5

August 1. Index Cor. - 7".0; Run + 1".2.

August 2. Index Cor. - 7".2; Run + 1".3.

August 4. Index Cor. - 7".0; Run + 1".3.

5-6 Nearest division.

12 Nearest division.

18 Unsteady.

23 Nearest division; unsteady.

26 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refrac- tion.	Reduc- tion to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean S.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	" ' "	° ' "
1	Aug. 4	30.12	74.5	69.1	ϵ Herculis	24 19 47.2	- 5.6	- 4.4	19 30.1	43 54 54.7
2	—	—	74.3	68.7	6030 B.A.C.	357 33 25.2	- 55.7	- 0.4	32 43.0	70 41 41.8
3	—	—	—	—	γ Draconis	29 45 3.7	- 0.2	- 4.7	44 51.8	38 29 33.0
4	—	—	—	—	α Lynceis.....S.P.	99 8 42.4	+146.9	+ 0.7	11 2.7	30 56 37.9
5	—	—	—	—	η Serpentis	335 19 52.1	- 79.5	+ 3.1	18 28.7	92 55 56.1
6	—	30.13	72.8	65.5	α Urs. Min.	65 12 31.5	+ 39.9	- 3.8	13 1.3	3 1 23.5
7	—	—	—	—	β Lynceis ...S.P.	100 53 2.6	+161.8	+ 1.3	55 39.5	32 41 14.7
8	—	—	—	—	γ Lynceis ...S.P.	99 35 41.6	+151.3	+ 1.2	38 7.3	31 23 42.5
9	—	—	—	—	ζ Sagittarii	308 15 43.9	- 371.6	+ 5.8	9 31.3	120 4 53.5
10	—	30.13	71.0	62.9	δ B.A.C.	6 39 18.0	- 24.6	- 3.1	38 43.1	61 35 41.7
11	—	—	—	—	6590 B.A.C.	322 29 44.5	- 136.4	+ 1.9	27 22.9	105 47 1.9
12	—	—	—	—	β Cygni (2d)....	5 54 56.8	- 25.4	- 3.5	54 20.9	62 20 3.9
13	—	—	—	—	6741 B.A.C.	27 11 49.3	- 2.8	- 4.0	11 36.0	41 2 48.8
14	—	—	—	—	6785 B.A.C.	327 2 52.1	- 111.0	- 0.9	0 53.9	101 13 30.9
15	—	30.13	69.0	62.5	ϵ Draconis	48 8 18.1	+ 18.6	- 3.1	8 27.5	20 5 57.3
16	5	30.15	73.0	63.2	5846 B.A.C.	313 32 49.8	- 231.4	+ 12.1	29 4.3	114 45 20.5
17	—	—	—	—	β Draconis	30 39 10.8	+ 0.6	- 5.1	38 59.2	37 35 25.6
18	—	—	—	—	α Draconis.....	40 13 31.7	+ 10.3	- 5.7	13 30.3	28 0 54.5
19	—	70.5	62.1	—	δ Herculis	3 55 26.9	- 27.9	- 1.7	54 50.5	64 19 34.3
20	—	—	—	—	ν Ophiuchi.....	328 31 4.7	- 104.6	+ 5.8	29 19.3	99 45 5.5
21	—	—	—	—	ψ^2 Draconis.....	50 15 17.0	+ 21.1	- 5.4	15 25.9	17 58 58.9
22	—	—	—	—	μ^1 Sagittarii.....	317 11 55.8	- 182.5	+ 7.7	8 54.6	111 5 30.2
23	—	30.15	68.2	60.1	6213 B.A.C.	345 27 45.1	- 56.2	+ 1.0	26 43.7	82 47 41.1
24	—	—	—	—	χ Draconis	50 54 21.1	+ 21.9	- 4.9	54 31.0	17 19 53.8
25	—	30.14	67.1	59.4	6347 B.A.C.	317 7 29.7	- 183.7	+ 6.0	4 25.7	111 9 59.1
26	—	—	—	—	6447 B.A.C.	321 44 0.1	- 143.0	+ 3.8	41 33.7	106 32 51.1
27	—	30.14	65.9	57.5	6505 B.A.C.	312 52 15.8	- 246.2	+ 4.7	48 8.0	115 26 16.8
28	—	—	—	—	α Camelop. S.P.	98 49 24.2	+147.6	+ 0.2	51 44.9	30 37 20.1
29	—	30.14	64.8	55.5	χ^1 Sagittarii.....	313 31 22.8	- 235.3	+ 2.8	27 23.8	114 47 1.0
30	—	—	—	—	α Aquile.....	333 18 5.6	- 87.7	- 1.0	16 30.8	94 57 54.0
31	—	—	—	—	6785 B.A.C.	327 2 55.7	- 112.6	- 1.0	0 56.0	101 13 28.8
32	—	30.14	63.0	55.1	ϵ Draconis	48 8 17.8	+ 18.9	- 3.4	8 27.3	20 5 57.5
33	6	30.00	71.1	59.5	α Camelop. S.P.	96 20 58.1	+129.4	- 0.6	23 0.4	28 8 35.6

August 5. Index Cor. - 6".9; Run + 1".3.

August 6. Index Cor. - 6".8; Run + 1".3.

4 Nearest division.
9 Flickering.

26 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Aug. 6	29.99	70.1	60.0	6030 B.A.C.	357 33 25.7	- 36.2	- 0.6	32 43.0	70 41 41.8
2		29.99	69.8	60.2	6064 B.A.C.	316 21 57.3	- 191.2	+ 9.2	18 49.0	111 55 35.8
3		—	—	—	6108 B.A.C.	312 42 4.2	- 247.1	+ 9.6	38 0.4	115 36 24.4
4		29.98	68.2	58.2	43 Aurigæ ...S.P.	111 43 38.6	+ 373.2	+ 3.1	49 47.7	43 35 22.9
5		—	—	—	6 Lyncis.....S.P.	99 56 11.8	+ 155.2	+ 0.7	58 41.2	31 44 16.4
6		29.97	67.0	56.7	41 Camelop. S.P.	96 9 58.1	+ 128.9	+ 0.1	12 0.3	27 57 35.5
7		—	—	—	6386 B.A.C.	317 51 48.8	- 175.9	+ 5.1	48 51.7	110 25 33.1
8		29.97	65.2	55.9	6447 B.A.C.	321 43 58.2	- 142.9	+ 3.8	41 32.0	106 32 52.8
9		—	—	—	17 Lyrae	10 31 34.7	- 20.3	- 3.9	31 4.1	57 43 20.7
10		29.97	64.2	55.9	ω Aquilæ	349 35 44.3	- 48.8	- 2.1	34 46.8	78 39 38.0
11		—	—	—	6657 B.A.C.	2 54 24.7	- 29.3	- 3.6	53 44.8	65 20 40.0
12		29.97	63.8	56.8	6723 B.A.C.	29 10 22.9	- 0.8	- 4.7	10 10.7	39 4 14.1
13		—	—	—	6785 B.A.C.	327 2 54.4	- 111.8	- 1.0	0 55.6	101 13 29.2
14		29.98	63.0	56.1	61 Sagittarii <i>g</i> ...	322 24 38.9	- 138.1	- 1.2	22 12.7	105 52 12.1
15	7	29.81	73.7	66.8	45 Ophiuchi <i>d</i> ...	308 36 14.6	- 351.7	+ 13.3	30 29.8	119 43 55.0
16		—	—	—	μ Herculis	6 3 26.1	- 24.9	- 2.4	2 53.1	62 11 31.7
17		—	—	—	6065 B.A.C.	322 29 38.8	- 134.3	+ 7.5	27 25.2	105 46 59.6
18		29.80	72.3	64.6	70 Ophiuchi (2d)	340 47 43.0	- 64.9	+ 2.4	46 34.6	87 27 50.2
19		29.80	71.1	62.7	6349 B.A.C.	17 1 37.6	- 13.0	- 4.4	1 14.0	51 13 10.8
20		—	—	—	γ ¹ Lyrae	10 53 54.4	- 19.5	- 3.9	53 24.0	57 21 0.8
21		—	—	—	6547 B.A.C.	6 39 19.8	- 24.3	- 3.8	38 44.8	61 35 40.0
22		29.79	69.5	61.9	6590 B.A.C.	322 29 44.1	- 135.1	+ 1.9	27 24.1	105 47 0.7
23		—	—	—	ε ² Cygni	29 40 4.9	- 0.3	- 5.0	39 52.9	38 34 31.9
24		—	—	—	ο Aquilæ	348 18 57.3	- 50.2	- 3.5	17 56.6	79 56 28.2
25		—	—	—	η Cygni	12 57 5.0	- 17.3	- 4.9	56 36.7	55 17 48.1
26		29.78	68.2	60.3	η Sagittæ.....	357 50 4.4	- 35.5	- 4.6	49 17.6	70 25 7.2
27	9	29.71	70.1	64.1	β Lyrae (2d).....	11 26 7.4	- 18.8	- 4.4	25 38.0	56 48 46.8
28		29.71	69.0	63.6	χ ¹ Sagittarii	313 31 15.9	- 228.2	+ 3.0	27 24.6	114 47 0.2
29		—	—	—	μ Aquilæ	345 20 5.0	- 55.3	- 2.7	19 0.5	82 55 24.3
30		29.70	68.2	63.5	* 19 ^b 35 ^m 40 ^s ...	65 49 42.8	+ 40.4	- 3.5	50 13.1	2 24 11.7
31		—	—	—	ε Draconis	48 8 21.4	+ 18.3	- 4.7	8 29.4	20 5 55.4
32		—	—	—	6907 B.A.C.	322 50 17.5	- 132.0	- 2.1	47 57.0	105 26 27.8
33		—	—	—	* 20 ^h 6 ^m 15 ^s	17 56 22.2	- 12.0	- 5.6	55 58.5	50 18 26.3

August 7. Index Cor. - 6".7; Run + 1".4. A hazy night.

9. Index Cor. - 6".5; Run + 1".4. Cloudy sky with clear intervals.

4 Nearest division.
8 Nearest division.
20 Nearest division.

24 Nearest division.
33 Very faint.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refrac- tion.	Reduc- tion to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		" "	" "	" "	" "	" "
1	Aug. 9	29.70	67.3	63.4	72 Draconis.....	40 2 28.9	+ 9.9	- 4.7	2 28.3	28 11 56.5
2	11	29.75	73.9	65.3	36 Ophiu. A (1st)	311 55 22.9	- 257.7	+ 13.0	51 11.7	116 23 13.1
3		—	—	—	θ Ophiuchi	313 27 6.3	- 228.9	+ 12.2	23 23.6	114 51 1.2
4		—	—	—	δ N. L.	309 50 37.7	- 310.4	.....	25 41.4	117 48 43.4
5		29.75	70.0	63.5	γ Lyrae	10 44 37.1	- 19.6	- 4.9	44 5.9	57 30 18.9
6		—	—	—	δ Draconis	45 38 51.2	+ 15.7	- 6.0	38 54.0	22 35 30.8
7		29.75	69.2	62.6	8 Vulpecule	2 43 32.4	- 29.0	- 4.7	42 53.1	65 31 31.7
8	13	29.82	73.0	64.6	3 Sagittarii	310 32 56.1	- 291.5	+ 11.6	28 10.4	117 46 14.4
9		—	—	—	6065 B.A.C.	322 29 41.2	- 134.5	+ 7.5	27 27.4	105 46 57.4
10		29.82	71.8	64.5	70 Ophiuchi (2d)	340 47 45.3	- 64.9	+ 1.7	46 36.2	87 27 48.6
11		—	—	—	40 Draconis.....	58 12 41.5	+ 30.1	- 6.6	12 59.1	10 1 25.7
12		—	—	—	* 18 ^h 17 ^m 50 ^s ...	63 54 8.3	+ 37.8	- 6.1	54 33.0	4 19 51.8
13		29.82	70.2	63.5	24 Urs. Min.	65 12 33.7	+ 39.7	- 5.9	13 1.6	3 1 23.2
14		—	—	—	α Lyrae.....	16 53 58.9	- 13.1	- 5.8	53 33.0	51 20 51.8
15		—	—	—	9 Aquilæ	332 14 12.5	- 88.9	+ 1.3	12 38.0	96 1 46.8
16		—	—	—	47 Camelop. S.P.	98 2 29.8	+ 138.6	- 0.4	4 42.0	29 50 17.2
17		29.81	68.2	62.6	δ Aquilæ	341 5 30.5	- 64.5	- 2.1	4 17.4	87 10 7.4
18		—	—	—	6746 B.A.C.	322 28 47.6	- 135.3	- 0.1	26 25.1	105 47 59.7
19		29.81	67.5	61.6	61 Sagittarii y...	322 24 37.3	- 135.8	- 1.3	22 13.4	105 52 11.4
20		—	—	—	η Sagittæ.....	357 50 5.5	- 35.5	- 5.8	49 17.5	70 25 7.3
21		29.80	67.0	61.0	γ Cygni	18 2 42.5	- 12.0	- 6.8	2 17.8	50 12 7.0
22	14	29.80	69.0	60.2	ψ ² Draconis	50 15 19.3	+ 20.9	- 7.2	15 26.4	17 58 58.4
23		—	—	—	36 Draconis.....	42 35 20.4	+ 12.6	- 7.3	35 19.1	25 39 5.7
24		29.80	68.0	60.4	24 Urs. Min.	65 12 33.0	+ 39.9	- 6.1	13 0.9	3 1 23.9
25		—	—	—	6368 B.A.C.	33 21 22.6	+ 3.3	- 7.0	21 12.6	34 53 12.2
26		—	—	—	ν ¹ Lyrae	10 53 55.5	- 19.6	- 5.4	53 23.5	57 21 1.3
27		29.79	66.8	59.5	6490 B.A.C.	313 15 54.8	- 235.2	+ 5.2	11 58.4	115 2 26.4
28		—	—	—	6563 B.A.C.	55 4 42.0	+ 26.5	- 6.5	4 55.2	13 9 29.6
29		—	—	—	59 Draconis.....	54 33 15.3	+ 25.9	- 6.4	33 29.1	13 40 55.7
30		—	—	—	8 Vulpecule	2 43 34.4	- 29.2	- 5.3	42 54.3	65 31 30.5
31		29.79	64.9	58.8	ω Sagittarii	311 38 18.7	- 267.9	+ 0.7	33 45.8	116 40 39.0
32		—	—	—	62 Sagittarii c...	310 13 12.8	- 303.9	+ 0.3	8 3.5	118 6 21.3

August 11. Index Cor. - 6".6; Run + 1".4.

August 13-14. Index Cor. - 6".7; Run + 1".5.

4 Semi-diam. - 15' 28".8; Par. + 55' 49".3;
late; covered with thick clouds at the
Meridian Passage.
6 Nearest division.

14 Nearest division.
15 Sky overspread with light clouds.
18 Nearest division.
26 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Aug. 14	29.80	64.7	58.5	6986 B.A.C.	18 10 7.9	- 11.9	- 7.0	9 42.3	50 4 42.5
2					72 Draconis.....	40 2 28.0	+ 10.1	- 6.4	2 25.7	28 11 59.1
3		29.80	64.5	58.0	δ S. L.	313 16 32.8	- 235.9	.....	26 24.9	113 47 59.9
4					56 Cygni	21 45 54.8	- 8.2	- 7.2	45 33.0	46 28 51.8
5					1 Equulei (2d) ..	342 0 21.8	- 63.1	- 7.5	59 4.6	86 15 20.2
6		29.80	64.0	57.5	7325 B.A.C.	317 32 22.3	- 177.8	- 6.7	29 11.8	110 45 13.0
7					ι Capricorni.....	320 50 23.1	- 148.2	- 8.2	47 40.1	107 26 44.7
8		29.79	64.0	57.4	ζ Capricorni	315 16 6.0	- 205.0	- 8.4	12 26.2	113 1 58.6
9	15	29.90	67.0	52.4	7325 B.A.C.	317 32 28.2	- 180.2	- 6.6	29 15.3	110 45 9.5
10					ι Capricorni.....	320 50 30.3	- 150.3	- 8.2	47 45.2	107 26 39.6
11		29.90	65.1	51.9	ζ Capricorni.....	315 16 12.5	- 208.1	- 8.3	12 29.7	113 1 55.1
12					8 Piscis Australis	311 30 40.4	- 275.7	- 9.1	25 49.0	116 48 35.8
13					δ S. L.	318 8 46.1	- 174.1	.....	19 4.2	108 55 20.6
14					7608 B.A.C.	318 59 57.6	- 165.9	- 10.7	56 54.2	109 17 30.6
15					7650 B.A.C.	332 9 54.4	- 91.5	- 11.2	8 4.9	96 6 19.9
16		29.88	62.2	51.9	ι Aquarii	323 42 55.3	- 130.5	- 11.9	40 27.0	104 33 57.8
17	22	29.87	61.1	50.7	111 Herculis.....	356 16 41.0	- 38.6	- 4.2	15 52.0	71 58 32.8
18		29.88	59.1	49.7	δ Draconis	45 38 53.0	+ 16.2	- 9.0	38 53.4	22 35 31.4
19					β Cygni (2d) ..	5 54 59.9	- 25.9	- 7.2	54 20.2	62 20 4.6
20					6764 B.A.C.	28 25 47.4	- 1.6	- 9.1	25 30.3	39 48 54.5
21		29.89	57.9	49.9	η Cygni.....	12 57 9.5	- 17.8	- 8.5	56 37.1	55 17 47.7
22		29.89	57.3	49.8	γ Cygni.....	18 2 45.0	- 12.3	- 9.2	2 17.5	50 12 7.3
23	29	30.05	66.0	57.1	θ Serpentis (2d)	342 16 43.7	- 63.0	- 2.0	15 33.0	85 58 51.8
24					R Aquilæ.....	346 16 24.0	- 54.9	- 3.6	15 19.8	81 59 5.0
25		30.04	64.2	56.4	24 Aquilæ.....	338 20 35.6	- 72.5	- 2.4	19 14.8	89 55 10.0
26					6657 B.A.C.	2 54 28.9	- 29.4	- 7.7	53 45.7	65 20 39.1
27					μ Aquilæ.....	345 20 10.6	- 56.8	- 4.8	19 3.0	82 55 21.8
28		30.05	62.2	55.5	61 Sagittarii g...	322 24 42.0	- 138.7	- 1.2	22 16.0	105 52 8.8
29					27 Cygni b ¹	13 49 39.8	- 16.7	- 10.3	49 6.7	54 25 18.1
30					* 20 ^h 6 ^m 15 ^s	17 56 26.9	- 12.4	- 10.7	55 58.1	50 18 26.7
31					3212 Gr.	62 28 26.2	+ 36.9	- 9.4	28 47.4	5 45 37.4
32		30.05	61.0	51.4	7090 B.A.C.	46 31 39.8	+ 17.2	- 10.8	31 40.5	21 42 44.3

August 15. Index Cor. - 6".8; Run + 1".5.
favourable night; cloudy and hazy.
at the beginning.

August 22. Index Cor. - 6".6; Run + 1".1. Un-
August 29. Index Cor. - 6".0; Run + 1".0. Cloudy

3 Semi-diam. + 16' 12".1; Par. + 57' 42".1.
6 Hazy looking.
13 Semi-diam. + 16' 22".8; Par. + 56' 56".6;
nearest division.

16 Very unsteady.
18 Nearest division.
31 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		" ' "	"	"	" "	" ' "
1	Aug. 29	30.05	60.3	50.2	7217 B.A.C.....	57 9 15.1	+ 29.8	- 9.8	9 29.0	11 4 55.8
2		—	—	—	7320 B.A.C.....	16 20 22.0	- 14.1	- 11.6	19 50.4	51 54 34.4
3		—	—	—	ζ Cygni.....	7 53 24.5	- 23.6	- 11.5	52 43.1	60 21 41.7
4		—	—	—	7468 B.A.C.....	30 31 10.4	+ 0.5	- 11.5	30 53.6	37 43 31.2
5		30.05	59.3	52.0	72 Cygni.....	16 8 23.7	- 14.3	- 12.1	7 52.0	52 6 32.8
6	Sept. 2	30.08	62.5	50.2	θ Serpente (2d)	342 16 44.5	- 64.0	- 2.3	15 32.2	85 58 52.6
7		—	—	—	17 Lyre.....	10 31 41.6	- 20.6	- 8.9	31 6.1	57 43 18.7
8		30.08	61.1	49.0	ρ ² Sagittarii....	319 42 52.2	- 161.4	+ 2.4	40 7.4	108 34 17.4
9		—	—	—	β Cygni (2d)....	5 55 1.6	- 26.1	- 9.0	54 20.2	62 20 4.6
10		—	—	—	6785 B.A.C.....	327 2 56.8	- 114.0	- 1.7	0 55.3	101 13 29.5
11		30.09	59.6	48.3	59 Sagittarii b...	310 46 37.1	- 298.2	+ 1.9	41 34.8	117 32 50.0
12		—	—	—	6907 B.A.C.....	322 50 23.4	- 138.1	- 2.2	47 56.9	105 26 27.9
13		—	—	—	68 Draconis.....	39 53 8.5	+ 10.2	- 12.2	53 0.8	28 21 24.0
14		—	—	—	* 20 ^h 16 ^m 30 ^s ...	66 47 39.6	+ 43.9	- 10.0	48 7.7	1 26 17.1
15		—	—	—	* 20 ^h 23 ^m 40 ^s ...	66 40 24.3	+ 43.7	- 10.0	40 51.8	1 33 33.0
16		—	—	—	24 Cephei (Hev.)	66 55 10.1	+ 44.1	- 9.9	55 38.0	1 18 46.8
17		30.10	56.8	45.4	7262 B.A.C.....	32 12 40.7	+ 2.3	- 12.6	12 24.6	36 2 0.2
18		—	—	—	16 Urs. Maj. c S.P.	96 11 38.6	+ 132.6	- 5.1	13 40.1	27 59 15.3
19		30.10	56.5	45.0	3169 B.A.C... S.P.	106 18 45.5	+ 237.3	- 3.2	22 33.1	38 8 8.3
20		—	—	—	7468 B.A.C.....	30 31 12.1	+ 0.5	- 12.7	30 53.8	37 43 31.0
21		30.10	55.1	43.6	ε Pegasi..... R.	252 31 35.6	+ 54.2	+ 12.5	32 56.3	80 47 1.1
22	3	30.15	63.7	53.8	6386 B.A.C.....	317 51 50.3	- 177.8	+ 5.6	48 52.0	110 25 32.8
23		—	—	—	6480 B.A.C.....	10 58 8.5	- 20.0	- 8.8	57 33.9	57 16 50.9
24		—	—	—	6563 B.A.C.....	55 4 46.4	+ 27.2	- 11.1	4 56.1	13 9 28.7
25		30.15	62.1	51.8	ρ ² Sagittarii.....	319 42 51.3	- 161.0	+ 2.5	40 6.9	108 34 17.9
26		—	—	—	β Cygni (1st)...	5 54 43.9	- 26.0	- 9.1	54 2.4	62 20 22.4
27		—	—	—	* 19 ^h 35 ^m 40 ^s ...	65 49 49.6	+ 42.1	- 10.4	50 14.9	2 24 9.9
28		—	—	—	η Cygni.....	12 57 10.8	- 17.9	- 11.0	56 35.9	55 17 48.9
29		30.14	60.8	50.4	η Sagittæ.....	357 50 10.0	- 36.7	- 9.2	49 17.7	70 25 7.1
30		—	—	—	6980 B.A.C.....	38 26 38.7	+ 8.7	- 12.5	26 28.8	29 47 56.0
31		30.14	60.1	49.4	3212 Gr.	62 28 27.3	+ 37.2	- 10.8	28 47.0	5 45 37.8
32		—	—	—	S Capricorni.....	318 43 21.4	- 170.7	- 4.1	40 19.9	109 34 4.9
33		—	—	—	32 Vulpeculæ R.	234 16 24.6	+ 26.3	+ 12.1	16 56.9	62 31 21.7

September 2. Index Cor. - 6".3; Run + 0".9. Cloudy at the beginning.

3. Index Cor. - 6".4; Run + 0".9.

3 Nearest division.

19 Nearest division.

22 Difficult to observe in the twilight.

27 Cloudy.

31-32 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refrac- tion.	Reduc- tion to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	" "	° ' "
1	Sept. 3	30.14	59.2	49.6	δ Equulei R.	252 19 7.6	+ 53.2	+ 11.2	20 5.4	80 34 30.2
2					35 Vulpeculæ R.	234 46 0.0	+ 27.0	+ 13.0	46 33.8	63 0 58.6
3					* 9 ^h 30 ^m 10 ^s S.P.	70 58 27.9	+ 50.7	- 9.1	59 2.8	2 44 38.0
4		30.14	58.0	49.0	* 9 ^h 44 ^m 50 ^s S.P.	73 37 15.1	+ 55.7	- 8.5	37 56.3	5 23 31.5
5	4	29.97	63.8	54.3	6368 B.A.C.	33 21 28.4	+ 3.4	- 10.9	21 14.7	34 53 10.1
6					9 Aquilæ	332 14 17.3	- 91.2	+ 0.5	12 40.0	96 1 44.8
7					6505 B.A.C.	312 52 14.6	- 247.0	+ 5.9	48 7.4	115 26 17.4
8		29.97	62.1	53.0	R Aquilæ	346 16 24.7	- 55.2	- 4.0	15 19.3	81 59 5.5
9					6590 B.A.C.	322 29 49.5	- 138.5	+ 1.9	27 26.4	105 46 58.4
10					χ^1 Sagittarii	313 31 22.8	- 235.4	+ 4.0	27 25.1	114 46 59.7
11					8 Vulpeculæ	2 43 41.0	- 29.8	- 8.7	42 55.8	65 31 29.0
12		29.96	61.0	52.3	52 Sagittarii h^2 .	313 6 42.7	- 242.9	+ 3.2	2 36.8	115 11 48.0
13					19 Cygni	16 36 11.9	- 13.8	- 11.4	35 40.4	51 38 44.4
14		29.95	60.0	51.4	15 Sagittæ	354 56 18.3	- 40.6	- 8.8	55 22.6	73 19 2.2
15					* 20 ^h 6 ^m 15 ^s	17 56 28.9	- 12.4	- 12.0	55 58.3	50 18 26.5
16					β Delphini R.	247 38 57.4	+ 44.7	+ 10.0	39 45.4	75 54 10.2
17					ω Capricorni	310 52 11.2	- 292.9	- 3.3	47 8.9	117 27 15.9
18		29.94	58.0	50.2	7300 B.A.C.	312 40 26.4	- 252.1	- 4.8	36 3.1	115 38 21.7
19					δ Equulei R.	252 19 5.8	+ 52.8	+ 11.3	20 3.2	80 34 28.0
20					7434 B.A.C.	312 27 33.4	- 256.6	- 6.9	23 3.9	115 51 20.9
21					7484 B.A.C.	61 52 52.6	+ 36.1	- 10.8	53 11.9	6 21 12.9
22					7533 B.A.C.	39 53 41.6	+ 10.1	- 12.8	53 32.2	28 20 52.6
23		29.93	57.1	49.4	7608 B.A.C.	318 59 57.8	- 167.0	- 10.3	56 54.0	109 17 30.8
24	5	29.80	62.0	53.0	α Lyrae	16 54 2.0	- 23.4	- 9.4	53 32.4	51 20 52.4
25					ν^2 Lyrae	10 38 15.8	- 20.2	- 8.7	37 40.8	57 36 44.0
26		29.80	61.1	51.8	6490 B.A.C.	313 15 57.3	- 239.1	+ 6.0	11 57.8	115 2 27.0
27					6563 B.A.C.	55 4 47.2	+ 27.0	- 11.5	4 56.1	13 9 28.7
28					24 Aquilæ	338 20 37.7	- 72.8	- 2.7	19 15.7	89 55 9.1
29					τ Draconis	51 19 33.3	+ 22.5	- 11.9	19 37.2	16 54 47.6
30					μ Aquilæ	345 20 9.9	- 57.1	- 5.4	19 0.8	82 55 24.0
31		29.78	58.9	48.8	6764 B.A.C.	28 25 51.5	- 1.6	- 12.3	25 31.1	39 48 53.7
32					11 Sagittæ	354 39 37.2	- 41.0	- 8.6	38 40.9	73 35 43.9
33					6907 B.A.C.	322 50 22.8	- 136.7	- 2.1	47 57.5	105 26 27.3

September 4. Index Cor. - 6".5; Ruu + 0".9.

September 5. Index Cor. - 6".6; Run + 0".8.

3 Nearest division.
11 Nearest division.16 Nearest division.
22 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle-Reading Mean of 4 Microscopes reduced to the Meridian.	Refrac- tion.	Reduc- tion to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Sept. 5	29.77	57.6	47.7	* 20 ^h 6 ^m 15 ^s	17 56 31.2	- 12.4	- 12.2	56 0.2	50 18 24.6
2		29.77	57.0	47.3	o Urs. Maj. S.P.	97 0 40.1	+ 135.8	- 5.5	2 43.9	28 48 19.1
3		—	—	—	* 20 ^h 30 ^m 50 ^s ...	62 53 57.0	+ 37.5	- 11.4	54 16.3	5 20 8.5
4		—	—	—	7217 B.A.C.	57 9 16.2	+ 29.8	- 12.0	9 27.3	11 4 57.5
5		29.76	55.5	46.7	ξ Cygni.....	7 53 27.0	- 23.6	- 13.1	52 43.5	60 21 41.3
6		—	—	—	ε Pegasi.....R.	252 31 34.8	+ 53.2	+ 12.9	32 34.6	80 46 59.4
7		—	—	—	16 Pegasi.....	3 30 11.2	- 28.9	- 14.1	29 21.6	64 45 3.2
8		29.75	54.9	46.5	Weisse xxi. 1240	324 34 3.3	- 126.3	- 11.8	31 38.4	103 42 46.4
9	8	29.82	63.0	50.7	7468 B.A.C.	30 31 14.5	+ 0.5	- 14.5	30 54.3	37 43 30.5
10		—	—	—	7553 B.A.C.	348 25 48.7	- 51.1	- 13.3	24 38.0	79 49 46.8
11		—	—	—	16 Pegasi.....	3 30 15.5	- 28.8	- 14.7	29 23.6	64 45 1.2
12		—	—	—	Weisse xxi. 1240	324 34 3.8	- 125.4	- 11.8	31 40.0	103 42 44.8
13		29.80	61.3	50.5	ξ Cephei (1st)...	42 10 14.8	+ 12.4	- 13.8	10 7.0	26 4 17.8
14	10	29.93	66.2	61.0	52 Sagittarii h ² ...	313 6 35.4	- 238.3	+ 3.5	2 34.8	115 11 50.0
15		—	—	—	16 Cygni c.....	28 26 19.0	- 1.6	- 13.2	25 58.3	39 48 26.5
16		—	—	—	59 Sagittarii b...	310 46 26.2	- 289.2	+ 2.4	41 33.6	117 32 51.2
17		29.94	65.1	60.3	δ S. L.	311 22 16.3	- 274.6	.....	30 52.2	115 43 32.6
18		—	—	—	γ Cygni	18 2 49.3	- 12.0	- 13.5	2 18.2	50 12 6.6
19		—	—	—	7090 B.A.C.	46 31 45.0	+ 16.9	- 14.2	31 41.9	21 42 42.9
20		29.95	64.5	59.0	ω Capricorni	310 52 5.2	- 287.7	- 2.8	47 9.0	117 27 15.8
21		—	—	—	* 20 ^h 56 ^m 20 ^s ...	63 21 34.7	+ 37.5	- 12.8	21 53.6	4 52 31.2
22		—	—	—	δ Equulei.....	347 41 7.5	- 51.9	- 11.9	39 57.8	80 34 27.0
23		29.95	64.0	58.5	1 Pegasi (2d) ...	357 26 46.3	- 36.4	- 13.5	25 50.6	70 48 34.2
24		—	—	—	8 Piscis Australis	311 30 30.8	- 272.6	- 7.3	25 44.9	116 48 39.9
25		—	—	—	ε Pegasi	347 28 37.8	- 52.3	- 13.5	27 25.7	80 46 59.1
26		29.95	63.5	58.3	7636 B.A.C.	33 46 47.5	+ 3.8	- 15.1	46 30.4	34 27 54.4
27		—	—	—	7705 B.A.C.	22 33 49.5	- 7.5	- 15.5	33 20.2	45 41 4.6
28		29.96	63.2	57.6	7782 B.A.C.	34 44 51.4	+ 4.7	- 14.9	44 35.1	33 29 49.7
29	13	30.02	60.0	49.0	β Cephei (2d)...	48 10 10.5	+ 19.1	- 15.0	10 9.0	20 4 15.8
30		—	—	—	78 Draconis.....	49 54 1.5	+ 21.1	- 15.0	54 1.8	18 20 23.0
31		30.02	59.2	48.4	7668 B.A.C.	35 12 53.2	+ 5.3	- 15.9	12 37.6	33 1 47.2
32		—	—	—	7754 B.A.C.	34 22 9.6	+ 4.5	- 15.9	21 53.0	33 52 31.8

September 8. Index Cor. - 6".4; Run + 0".9.
13. Index Cor. - 5".6; Run + 1".0.

September 10. Index Cor. - 6".1; Run + 0".9.
Night unfavourable; stars very unsteady.

3 Nearest division.
5 Nearest division.
17 Semi-diam. + 15' 58".2; Par. + 57' 18".0.

19 Light clouds over the whole sky.
25 Nearest division.
27 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg		° ' "	"	"	" "	° ' "
1	Sept 13	30.01	58.3	47.9	γ Aquarii.....	336 9 26.5	- 79.8	- 14.7	7 46.3	92 6 38.5
2		30.01	58.0	47.8	σ Aquarii.....	326 51 52.1	- 114.7	- 14.3	49 37.9	101 24 46.9
3		—	—	—	31 Cephei.....	51 8 5.7	+ 22.6	- 14.2	8 9.1	17 6 15.7
4		—	—	—	7951 B.A.C.	333 17 46.2	- 88.8	- 16.1	15 56.3	94 58 28.5
5		30.02	57.1	47.1	δ Aquarii.....	321 42 5.9	- 146.0	- 15.6	39 19.1	106 35 5.7
6		—	—	—	Δ S. L.	327 40 54.3	- 111.1	.....	49 23.0	99 25 1.8
7		—	—	—	67 Pegasi.....	9 50 49.1	- 21.5	- 17.5	50 4.7	58 24 20.1
8		—	—	—	8184 B.A.C.	332 57 18.8	- 90.2	- 18.6	55 24.9	95 18 59.9
9		—	—	—	4101 Gr.	64 44 45.0	+ 40.6	- 10.9	45 9.0	3 29 15.8
10		—	—	—	λ Piscium.....	339 15 17.8	- 71.6	- 19.2	13 41.5	89 0 43.3
11		30.02	56.0	46.0	20 Piscium.....	334 42 32.8	- 84.4	- 19.6	40 43.7	93 33 41.1
12	16	30.05	62.3	52.7	42 Aquilæ.....	333 18 6.2	- 87.9	- 2.8	16 30.9	94 57 53.9
13		—	—	—	η Aquilæ.....	338 54 7.9	- 71.7	- 5.4	52 45.3	89 21 39.5
14		—	—	—	6867 B.A.C.	36 42 23.7	+ 6.8	- 15.1	42 10.6	31 32 14.2
15		30.03	61.2	51.8	27 Cygni b^1	13 49 41.9	- 16.8	- 13.5	49 6.2	54 25 18.6
16		—	—	—	68 Draconis.....	39 53 12.0	+ 10.1	- 15.5	53 2.0	28 21 22.8
17		—	—	—	* 20 ^h 16 ^m 30 ^s ...	66 47 43.5	+ 43.4	- 13.8	48 8.4	1 26 16.4
18		30.02	60.3	50.6	* 20 ^h 30 ^m 50 ^s ...	62 54 0.0	+ 37.6	- 14.4	54 17.7	5 20 7.1
19		—	—	—	* 20 ^h 41 ^m 0 ^s ...	65 43 6.6	+ 41.8	- 14.2	43 29.6	2 30 55.2
20		—	—	—	7262 B.A.C.	32 12 43.2	+ 2.3	- 16.3	12 24.5	36 2 0.3
21		30.02	59.3	49.5	16 Urs. Maj. c S.P.	96 11 42.5	+ 131.2	- 8.8	13 40.0	27 59 15.2
22		—	—	—	3199 B.A.C. ....S.P.	76 16 17.9	+ 60.8	- 12.7	17 1.0	8 2 36.2
23		—	—	—	ξ Aquarii .....R.	270 13 41.3	+ 101.5	+ 10.7	15 27.9	98 29 52.7
24		30.01	58.0	48.5	θ Pegasi .....R.	256 14 56.3	+ 60.9	+ 15.0	16 6.9	84 30 31.7
25		—	—	—	γ Aquarii .....R.	263 50 45.6	+ 79.6	+ 14.8	52 14.9	92 6 39.7
26		30.00	57.5	49.7	η Aquarii .....R.	262 35 40.3	+ 75.9	+ 15.8	37 6.9	90 51 31.7
27	22	29.11	57.2	49.7	7079 B.A.C. (2d)..	349 2 14.9	- 49.0	- 13.5	1 7.8	79 13 17.0
28		—	—	—	74 Draconis.....	58 49 19.4	+ 31.1	- 16.5	49 28.7	9 24 56.1
29		—	—	—	56 Cygni .....R.	21 46 3.7	- 8.2	- 17.0	45 33.7	46 28 51.1
30		29.11	56.0	49.4	7300 B.A.C.	312 40 22.2	- 245.6	- 3.5	36 8.1	115 38 16.7
31		—	—	—	γ Equulei .....R.	347 48 49.6	- 51.1	- 12.8	47 40.3	80 26 44.5
32		—	—	—	3169 B.A.C. ....S.P.	106 18 57.1	+ 227.6	- 8.0	22 31.3	38 8 6.5
33		29.11	55.1	49.3	23 Urs. Maj. S.P.	94 31 27.6	+ 117.9	- 10.9	33 9.9	26 18 45.1

September 16. Index Cor. - 5".3; Run + 1".1.

22. Index Cor. - 5".1; Run + 1".2. A windy night.

6 Semi-diam. + 16' 37".1; Par. + 53' 48".1.
14 Unsteady.23 Nearest division; passing clouds.
31—32 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches	Deg	Deg.		° ' "	"	"	' "	° ' "
1	Sept 22	29.11	55.1	49.3	7533 B.A.C.....	39 53 46.2	+ 9.9	- 18.4	53 32.3	28 20 52.5
2		29.10	55.1	49.6	7876 B.A.C.....	47 24 37.3	+ 17.7	- 17.8	24 32.0	20 49 52.8
3	24	28.98	58.3	47.9	ε Cephei.....	34 33 20.1	+ 4.5	- 19.3	33 1.0	33 41 23.8
4					34 Pegasi.....	34 55 28.7	- 62.8	- 16.6	54 4.2	86 20 20.6
5		28.99	57.5	47.9	ν Aquarii.....	316 51 7.2	- 183.9	- 12.6	47 45.8	111 26 39.0
6					ζ Pegasi.....	348 20 30.6	- 50.1	- 17.8	19 17.6	79 55 7.2
7		28.98	56.8	47.9	68 Aquarii γ^2	317 55 50.5	- 172.4	- 13.9	52 39.2	110 21 45.6
8					77 Aquarii.....	321 15 6.0	- 143.9	- 15.0	12 21.9	107 2 2.9
9					8026 B.A.C.....	61 48 42.9	+ 35.0	- 16.5	48 55.9	6 25 28.9
10		28.98	55.0	47.5	8083 B.A.C.....	34 37 10.8	+ 4.6	- 19.0	36 51.8	33 37 33.0
11	30	29.66	58.8	50.5	6867 B.A.C.....	36 42 24.5	+ 6.7	- 17.2	42 9.2	31 32 15.6
12					27 Cygni δ^1	13 49 43.1	- 16.7	- 15.2	49 5.6	54 25 19.2
13					68 Draconis.....	39 53 14.3	+ 10.0	- 18.0	53 0.3	28 21 24.5
14		29.66	57.7	49.0	ρ Capricorni.....	319 59 58.4	- 156.8	- 2.2	57 13.9	108 17 10.9
15					* 20 ^h 29 ^m 0 ^s	62 52 14.9	+ 37.2	- 17.6	52 29.6	5 21 55.2
16					γ Delphini (1st)	353 51 53.8	- 42.1	- 13.3	50 53.4	74 23 31.4
17		29.67	56.1	47.0	32 Vulpeculæ ...	5 45 56.4	- 26.0	- 16.2	45 9.0	62 29 15.8
18					σ ² Urs. Maj. S.P.	90 30 9.3	+ 101.9	- 13.5	31 32.2	22 17 7.4
19					18 Urs. Maj. e S.P.	103 34 40.7	+ 193.7	- 10.5	37 38.3	35 23 13.5
20					ε Pegasi.....R.	252 31 32.6	+ 53.1	+ 15.2	32 35.8	80 47 0.6
21		29.68	54.0	46.0	20 Pegasi.....R.	249 18 41.4	+ 47.4	+ 16.7	19 39.6	77 34 4.4
22					β Lacertæ.....	29 45 23.3	- 0.3	- 21.0	44 56.6	38 29 28.2
23					7876 B.A.C.....	47 24 38.1	+ 18.2	- 20.5	24 30.2	20 49 54.6
24		29.69	53.3	44.6	15 Lacertæ.....	20 47 53.5	- 9.4	- 21.1	47 18.3	47 27 6.5
25					2 Cassiopeiæ.....	36 47 52.5	+ 6.9	- 20.8	47 33.9	31 26 50.9
26					8122 B.A.C.....	51 8 34.5	+ 22.5	- 19.5	8 31.6	17 5 53.2
27					* 23 ^h 24 ^m 10 ^s ...	63 51 36.8	+ 39.0	- 17.7	51 53.1	4 22 31.7
28		29.68	53.0	44.5	γ Cephei.....	55 4 4.6	+ 27.2	- 18.6	4 7.4	13 10 17.4
29	Oct. 1	29.68	57.7	51.6	γ Cygni.....	18 2 51.6	- 12.1	- 16.8	2 18.0	50 12 6.8
30					κ Delphini.....	347 50 27.6	- 51.9	- 11.4	49 18.9	80 25 5.9
31					η Cephei.....	39 31 30.1	+ 9.6	- 19.4	31 15.2	28 43 9.6
32		29.67	56.5	51.5	α Cephei.....	40 13 14.7	+ 10.3	- 20.3	13 0.1	28 1 24.7

September 24. Index Cor. - 5".2; Run + 1".3.

September 30. Index Cor. - 5".5; Run + 1".4.

October 1. Index Cor. - 5".5; Run + 1".4.

1 Nearest division; clouded over after this observation.

9 Nearest division.

13 Nearest division.

14 Unsteady.

20 Very unsteady.

21 Nearest division.

26 Nearest division.

29 Cloudy sky.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Oct. 1	29.67	56.1	51.0	78 Draconis.....	49 54 6.6	+ 20.8	- 20.5	54 1.2	18 20 23.6
2	10	30.08	55.0	47.5	ρ Capricorni.....	319 59 59.3	- 159.6	- 1.8	57 12.5	108 17 12.3
3		—	—	—	51 Cygni	28 4 20.1	- 2.0	- 19.9	3 52.6	40 10 32.2
4		30.08	54.0	49.0	18 Delphini.....	348 32 45.6	- 51.5	- 13.1	31 36.4	79 42 48.4
5		—	—	—	δ Equulei.....	347 41 10.0	- 53.2	- 13.9	39 57.8	80 34 27.0
6		30.08	53.3	47.4	71 Cygni <i>g</i>	24 9 22.9	- 6.0	- 21.6	8 49.7	44 5 35.1
7		—	—	—	κ Capricorni.....	318 46 15.5	- 170.8	- 7.4	43 12.3	109 31 12.5
8		30.08	52.5	46.3	18 Cephei	40 39 54.3	+ 11.1	- 23.3	39 36.7	27 34 48.1
9	13	30.03	56.2	49.6	32 Vulpeculæ....	5 45 56.3	- 26.2	- 17.3	45 8.2	62 29 16.6
10		—	—	—	7320 B.A.C.	16 20 27.4	- 14.2	- 19.8	19 48.6	51 54 36.2
11		—	—	—	γ Equulei	347 48 50.2	- 52.7	- 13.7	47 38.6	80 26 46.2
12		—	—	—	7387 B.A.C.	37 45 0.9	+ 7.9	- 22.4	44 41.5	30 29 43.3
13	17	30.21	54.5	46.7	3025 B.A.C. ... S.P.	111 57 20.0	+ 395.8	- 10.5	3 42.1	43 49 17.3
14		—	—	—	γ Equulei	347 48 50.9	- 53.4	- 13.8	47 39.3	80 26 45.5
15		—	—	—	α Cephei	40 13 17.7	+ 10.6	- 23.3	13 2.1	28 1 22.7
16		30.22	53.8	46.6	71 Cygni <i>g</i>	24 9 24.9	- 6.0	- 22.6	8 52.1	44 5 32.7
17		30.22	53.2	48.3	20 Pegasi.....	350 41 31.1	- 48.1	- 17.7	40 21.8	77 34 3.0
18		30.21	53.1	48.4	ϵ Cephei.....	43 41 17.0	+ 14.3	- 25.6	41 2.1	24 33 22.7
19	18	30.20	54.1	44.9	7325 B.A.C.	317 32 26.4	- 184.9	- 3.6	29 15.0	110 45 9.8
20		—	—	—	1 Pegasi (2d)....	357 26 50.8	- 37.8	- 17.2	25 52.7	70 48 32.1
21		30.20	52.9	44.4	7494 B.A.C.	37 1 37.4	+ 7.3	- 23.9	1 17.7	31 13 7.1
22		—	—	—	μ Cygni (1st) ...	6 20 55.0	- 25.9	- 20.4	20 5.3	61 54 19.5
23		—	—	—	16 Pegasi.....	3 30 18.6	- 29.5	- 20.3	29 25.2	64 44 59.6
24		—	—	—	20 Pegasi.....	350 41 29.9	- 48.5	- 17.7	40 20.5	77 34 4.3
25		30.20	51.3	43.4	7705 B.A.C.	22 33 56.8	- 7.7	- 23.9	33 21.1	45 41 3.7
26		—	—	—	ϵ Cephei	34 34 26.2	+ 4.7	- 25.2	34 1.8	33 40 23.0
27		—	—	—	β Lacertæ.....	29 45 25.6	- 0.3	- 25.1	44 56.6	38 29 28.2
28		30.20	50.5	43.2	ν Aquarii.....	316 51 11.4	- 193.4	- 10.5	47 44.2	111 26 40.6
29		—	—	—	3747 B.A.C. ... S.P.	79 41 17.2	+ 69.9	- 22.3	42 1.5	11 27 36.7
30		30.19	49.9	42.4	* 10 ^b 56 ^m 18 ^s S.P.	71 48 50.8	+ 53.1	- 23.5	49 16.3	3 34 51.5

October 10. Index Cor. - 5".4; Run + 1".4.
17. Index Cor. - 4".0; Run + 1".7.

October 13. Index Cor. - 4".9; Run + 1".5.
18. Index Cor. - 3".7; Run + 1".7.

3 Thick fog.
11 Nearest division.
12 Thick clouds over the whole sky.
14 Nearest division.

16 Cloudy.
19—30 Hazy.
25 Nearest division.
30 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refrac- tion.	Reduc- tion to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches	Deg.	Deg.		° ' "	"	"	" ' "	° ' "
1	Oct. 21	30.17	55.1	48.4	γ Equulei	347 48 51.1	- 53.1	- 13.8	47 40.1	80 26 44.7
2		—	—	—	ν Cygni	12 32 47.1	- 18.4	- 20.5	32 5.4	55 42 19.4
3		30.17	54.9	47.9	ζ Capricorni	315 16 8.7	- 211.7	- 4.2	12 29.5	113 1 55.3
4		—	—	—	7494 B.A.C.	37 1 41.6	+ 7.2	- 24.4	1 21.2	31 13 3.6
5		—	—	—	μ Cygni (2d)	6 20 53.2	- 25.7	- 20.6	20 3.5	61 54 21.3
6		—	—	—	7642 B.A.C.	31 29 57.1	+ 1.5	- 24.9	29 30.0	36 44 54.8
7		—	—	—	32 Aquarii	336 39 56.4	- 78.8	- 14.1	38 19.8	91 36 5.0
8		30.17	53.8	47.0	7744 B.A.C.	332 50 28.8	- 90.9	- 13.4	48 41.0	95 25 43.8
9		—	—	—	33 Pegasi	358 22 45.6	- 36.2	- 20.8	21 45.8	69 52 39.0
10		—	—	—	7865 B.A.C.	338 7 21.6	- 74.9	- 16.4	5 47.4	90 8 37.4
11		30.18	52.8	45.9	ϵ Cephei	196 18 48.8	- 14.4	+ 26.6	18 58.5	24 33 23.3
12		—	—	—	60 Pegasi	235 40 34.9	+ 28.4	+ 23.8	41 23.6	63 55 48.4
13		30.18	52.8	45.5	8122 B.A.C.	51 8 39.6	+ 22.8	- 26.4	8 33.5	17 5 51.3
14		—	—	—	R Cassiopeiae	28 50 8.7	- 1.2	- 26.3	49 37.5	39 24 47.3
15		—	—	—	α Andromedæ ...	6 33 4.5	- 25.7	- 24.9	32 11.2	61 42 13.6
16		—	—	—	86 B.A.C.	57 29 37.1	+ 30.8	- 24.5	29 39.6	10 44 45.2
17		30.18	51.9	43.7	201 B.A.C.	32 40 46.7	+ 2.8	- 25.3	40 20.7	35 34 4.1
18		—	—	—	ν^1 Cassiopeiae ...	36 26 18.3	+ 6.7	- 24.8	25 56.9	31 48 27.9
19		30.18	51.3	43.2	290 B.A.C.	31 40 48.0	+ 1.7	- 24.6	40 21.7	36 34 3.1
20	24	30.40	54.3	44.3	71 Cygni <i>g</i>	24 9 25.6	- 6.1	- 23.3	8 52.4	44 5 32.4
21		—	—	—	7584 B.A.C.	3 10 37.1	- 30.1	- 20.2	9 43.4	65 4 41.4
22		—	—	—	7642 B.A.C.	31 29 56.6	+ 1.6	- 25.3	29 29.3	36 44 55.5
23		—	—	—	7676 B.A.C.	30 26 15.0	+ 0.4	- 25.5	25 46.7	37 48 38.1
24		—	—	—	7744 B.A.C.	332 50 31.5	- 92.2	- 13.3	48 42.6	95 25 42.2
25		—	—	—	7782 B.A.C.	34 45 0.9	+ 5.0	- 26.3	44 36.0	33 29 48.8
26		30.39	50.8	43.2	34 Pegasi	341 55 31.2	- 66.4	- 22.5	53 58.9	86 20 25.9
27		—	—	—	7881 B.A.C.	53 43 32.5	+ 26.3	- 26.9	43 27.9	14 30 56.9
28		—	—	—	7950 B.A.C.	23 42 34.7	- 6.6	- 26.2	41 59.1	44 32 25.7
29		30.40	49.9	42.1	3764 B.A.C. ... S.P.	82 0 40.3	+ 76.5	- 23.8	1 29.6	13 47 4.8
30		—	—	—	8064 B.A.C.	309 28 20.8	- 345.6	- 10.5	22 20.6	118 52 4.2
31		—	—	—	67 Pegasi	9 50 56.3	- 22.0	- 25.3	50 5.7	58 24 19.1
32		30.39	48.9	40.4	ϵ Piscium	256 53 28.4	+ 64.1	+ 20.6	54 50.5	85 9 15.3
33		—	—	—	R Cassiopeiae	28 50 10.4	- 1.2	- 27.0	49 38.7	39 24 46.1
34		—	—	—	γ Pegasi	247 21 27.2	+ 45.9	+ 23.7	22 33.6	75 36 58.4

October 21. Index Cor. - 3".7; Run + 1".6.

October 24. Index Cor. - 3".6; Run + 1".5.

1 Nearest division.

14 Red colour.

27 Nearest division.

30 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	" "	° ' "
1	Oct. 24	30.39	48.0	39.6	47 Piscium.... R.	244 38 49.7	+ 41.6	+ 24.3	39 53.1	72 54 17.9
2		—	—	—	232 B.A.C.	28 58 19.3	— 1.1	— 25.9	57 48.2	39 16 36.6
3		—	—	—	195 Gr.	64 36 41.2	+ 41.6	— 23.2	36 56.5	3 37 28.3
4		—	—	—	29 Ceti.....	339 30 25.8	— 73.0	— 23.1	28 46.2	88 45 38.6
5		30.39	47.2	38.7	37 Ceti.....	329 34 43.2	— 105.8	— 22.2	32 31.5	98 41 53.3
6	25	30.36	51.8	39.0	7586 B.A.C.	3 9 13.7	— 30.5	— 20.3	8 19.1	65 6 5.7
7		—	—	—	7650 B.A.C.	332 9 57.1	— 95.5	— 12.1	8 5.9	96 6 18.9
8		—	—	—	7676 B.A.C.	30 26 16.0	+ 0.5	— 25.6	25 47.7	37 48 37.1
9		30.35	49.9	37.9	7720 B.A.C.	333 40 21.4	— 90.3	— 13.4	38 34.2	94 35 50.6
10		—	—	—	7761 B.A.C.	49 38 43.9	+ 21.5	— 26.8	38 34.6	18 35 50.2
11		—	—	—	33 Pegasi.....	358 22 48.1	— 37.1	— 21.1	21 47.1	69 52 37.7
12		—	—	—	5 Lacertæ	25 13 15.8	— 5.0	— 26.0	12 42.1	43 1 42.7
13		—	—	—	7881 B.A.C.	53 43 33.1	+ 26.5	— 27.1	43 29.9	14 30 54.9
14		—	—	—	15 Lacertæ	20 47 58.5	— 9.8	— 26.1	47 19.8	47 27 5.0
15		30.35	46.9	38.5	8004 B.A.C.	324 26 24.2	— 131.8	— 14.0	23 55.2	103 50 29.6
16		—	—	—	87 Aquarii h ⁴ ...	329 48 17.6	— 104.8	— 16.0	46 14.1	98 28 10.7
17		—	—	—	8107 B.A.C.	30 41 11.4	+ 0.7	— 27.4	40 41.4	37 33 43.4
18		—	—	—	14 Andromedæ..	16 41 54.0	— 14.3	— 26.3	41 10.3	51 33 14.5
19		30.35	46.2	38.0	4 Piscium..... R.	256 53 27.8	+ 64.3	+ 20.6	54 50.1	85 9 14.9
20		—	—	—	γ Urs. Maj... S.P.	103 41 41.2	+ 203.3	— 19.6	44 41.8	35 30 17.0
21		30.35	45.9	38.0	67 Urs. Maj. S.P.	114 14 58.2	+ 546.2	— 17.5	23 43.3	46 9 18.5
22		—	—	—	γ Pegasi..... R.	247 21 27.4	+ 46.0	+ 23.8	22 34.0	75 36 58.8
23		—	—	—	47 Piscium.... R.	244 38 49.2	+ 41.7	+ 24.4	39 52.8	72 54 17.6
24		—	—	—	201 B.A.C.	32 40 49.1	+ 2.8	— 26.3	40 22.2	35 34 2.6
25		30.35	45.0	37.1	α ¹ Cassiopeiæ ...	56 26 19.0	+ 6.8	— 25.9	25 56.7	31 48 28.1
26	27	30.24	49.1	40.5	94 Aquarii	324 2 25.2	— 133.1	— 15.0	59 54.1	104 14 30.7
27		—	—	—	14 Andromedæ..	16 41 53.4	— 14.1	— 26.7	41 9.5	51 33 15.3
28		—	—	—	8239 B.A.C.	325 48 6.1	— 123.1	— 16.9	45 43.3	102 28 41.5
29		—	—	—	8289 B.A.C.	29 4 17.9	— 1.0	— 27.8	3 45.2	39 10 39.6
30		—	—	—	R Cassiopeiæ	28 50 10.3	— 1.2	— 27.7	49 37.8	39 24 47.0
31		30.23	46.5	38.7	* 23 ^h 59 ^m 40 ^s ...	64 13 23.2	+ 40.8	— 26.5	13 34.8	4 0 50.0
32		—	—	—	42 Piscium	350 56 37.4	— 48.6	— 23.8	55 21.8	77 19 3.0
33		—	—	—	* 0 ^h 25 ^m 20 ^s	62 32 7.3	+ 38.3	— 25.8	32 16.7	5 42 8.1

October 25. Index Cor. — 3".6; Run + 1".4. Night somewhat hazy.

27. Index Cor. — 3".7; Run + 1".5.

2 Nearest division.

10 Nearest division.

14 Very unsteady.

17 Unsteady.

30 Very red.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	° ' "	° ' "	° ' "	° ' "
1	Oct. 27	30.22	45.5	37.7	178 B.A.C.....	2 5 46.7	- 31.8	- 25.4	4 46.0	66 9 38.8
2		—	—	—	64 Piscium.....	354 25 19.8	- 43.0	- 24.6	24 8.6	73 50 16.2
3		30.22	45.0	37.2	2 Urs. Min.....	63 43 5.3	+ 40.1	- 24.6	43 18.0	4 31 6.8
4		30.22	44.5	37.5	39 Ceti.....	335 0 41.6	- 85.6	- 22.7	58 49.8	93 15 35.0
5	28	30.18	47.9	36.9	7715 B.A.C.	309 20 32.3	- 351.4	- 5.1	14 32.2	118 59 52.6
6		—	—	—	Weisse xxii. 299	345 26 0.1	- 59.1	- 17.7	24 39.8	82 49 45.0
7		—	—	—	α Lacertæ.....	27 47 33.4	- 2.3	- 26.8	47 1.3	40 27 23.5
8		30.17	46.1	37.0	68 Aquarii γ^2	317 55 54.9	- 185.6	- 10.9	52 36.9	110 21 47.9
9		—	—	—	Fomalhaut.....	307 58 20.7	- 407.0	- 8.6	51 22.4	120 23 2.4
10		—	—	—	8048 B.A.C.	58 14 44.8	+ 32.2	- 28.0	14 45.1	9 59 39.7
11		30.16	44.8	37.0	ψ^1 Aquarii.....	328 24 17.6	- 110.6	- 15.9	22 7.1	99 52 17.7
12		—	—	—	ν Pegasi.....	0 52 10.3	- 33.5	- 24.2	51 9.5	67 23 15.3
13		—	—	—	8239 B.A.C.	325 48 4.2	- 123.8	- 16.8	45 40.8	102 28 44.0
14		30.16	43.8	35.8	8289 B.A.C.	29 4 17.1	- 1.0	- 28.0	3 44.1	59 10 40.7
15		—	—	—	33 Piscium.....	331 45 38.1	- 97.0	- 19.5	43 38.0	96 30 46.8
16		—	—	—	κ ϕ^1 6m 40s.....	64 6 29.6	+ 40.8	- 26.6	6 40.5	4 7 44.3
17		—	—	—	A. Z. clxxxix. 77	88 30 14.9	+ 98.2	- 22.7	31 26.7	20 17 1.9
18		30.15	42.0	33.5	7 Draconis...S.P.	90 38 23.1	+ 107.1	- 21.7	39 45.8	22 25 21.0
19		—	—	—	9 Draconis...S.P.	90 50 32.9	+ 108.0	- 21.1	51 56.2	22 37 31.4
20		30.14	41.5	33.2	δ Cassiopeæ....	37 43 50.9	+ 8.2	- 25.4	43 29.5	30 30 55.3
21	30	30.00	49.1	48.7	20 Pegasi.....	350 41 30.1	- 47.7	- 17.9	40 21.1	77 34 3.7
22		—	—	—	λ Cephei.....	36 57 6.7	+ 7.1	- 27.3	56 43.3	31 17 41.5
23		—	—	—	ζ Aquarii (2d)...	337 30 37.0	- 75.9	- 15.6	29 1.8	90 45 23.0
24		29.99	49.9	47.7	31 Cephei.....	51 8 19.2	+ 22.6	- 28.4	8 10.6	17 6 14.2
25		—	—	—	ι Cephei.....	43 41 18.8	+ 14.2	- 28.6	41 0.9	24 33 23.9
26		—	—	—	2 Piscium.....	338 27 40.0	- 73.4	- 17.7	26 5.9	89 48 18.9
27		29.99	50.0	47.6	5 Andromedæ... γ	26 45 43.7	- 3.3	- 27.9	45 8.8	41 29 16.0
28		—	—	—	94 Aquarii.....	324 2 20.2	- 130.1	- 14.7	59 52.3	104 14 32.5
29		—	—	—	14 Andromedæ..	16 41 53.3	- 13.8	- 27.1	41 9.1	51 33 15.7
30		29.98	50.0	47.6	8314 B.A.C.	51 51 6.6	+ 23.4	- 28.6	50 57.9	16 23 26.9
31	31	30.14	50.8	46.1	32 Aquarii.....	336 39 56.9	- 78.9	- 13.8	38 20.2	91 36 4.6
32		—	—	—	7761 B.A.C.	49 38 44.4	+ 21.0	- 27.9	38 33.0	18 35 51.8

October 28. Index Cor. - 3".8; Run + 1".6. October 30. Index Cor. - 3".9; Run + 1".7.
 October 31. Index Cor. - 4".0; Run + 1".8.

5 Scarcely visible.

17 S.P.

19 Thick fog after this time.

20 Nearest division.

22 Temperature of the instrument 50.5.

23 South star.

21-30 Microscopes covered with dew.

29 Thick haze.

30 Scarcely to be seen; clouded over after this observation.

32 Nearest division; temperature of the instrument 48.8.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Oct. 31	30.15	50.2	46.9	36 Pegasi.....	346 39 25.2	- 55.4	- 18.4	38 7.2	81 36 17.6
2		30.15	50.0	47.2	8 Lacertæ (south)	17 8 9.1	- 13.4	- 25.9	7 26.9	51 6 57.9
3		—	—	—	7950 B.A.C.	23 42 34.1	- 6.5	- 27.2	41 57.3	44 32 27.5
4		—	—	—	Fomalhaut	307 58 11.7	- 398.2	- 8.2	51 22.5	120 23 2.3
5		30.16	49.8	46.5	5 Andromedæ ...	26 45 43.9	- 3.3	- 28.1	45 8.8	41 29 16.0
6	Nov. 4	30.19	49.0	37.6	7782 B.A.C.	34 45 2.1	+ 5.0	- 27.9	44 35.5	33 29 49.3
7		—	—	—	v Aquarii.....	316 51 14.8	- 195.4	- 9.0	47 47.1	111 26 37.7
8		—	—	—	11 Lacertæ	21 46 37.4	- 8.6	- 27.2	45 58.5	46 28 26.3
9		30.19	47.2	39.5	15 Lacertæ	20 47 59.6	- 9.7	- 27.4	47 19.9	47 27 4.9
10		—	—	—	β Pegasi	5 33 29.9	- 27.2	- 25.0	32 35.3	62 41 49.5
11		—	—	—	60 Pegasi.....	4 19 35.8	- 28.7	- 25.0	18 38.3	63 55 46.5
12		30.19	46.0	40.0	8156 B.A.C.	9 59 42.5	- 21.7	- 12.2	59 4.8	58 15 20.0
13		—	—	—	4101 Gr.	64 45 0.8	+ 40.6	- 29.4	45 8.3	3 29 16.5
14	5	30.31	48.0	37.5	Weisse xxii. 299	345 25 59.0	- 59.3	- 17.6	24 38.9	82 49 45.9
15		—	—	—	38 Pegasi.....	10 5 29.4	- 21.8	- 24.6	4 39.6	58 9 45.2
16		—	—	—	8 Lacertæ (1st) .	17 8 11.9	- 13.8	- 26.3	7 29.4	51 6 55.4
17		—	—	—	η Pegasi.....	7 43 28.2	- 24.7	- 24.7	42 36.4	60 31 48.4
18		—	—	—	ι Cephei	43 41 19.5	+ 14.7	- 29.8	41 1.3	24 33 23.5
19		30.31	45.3	36.5	51 Pegasi.....	358 15 23.4	- 37.4	- 23.0	14 19.5	70 0 5.3
20		—	—	—	β Pegasi	5 33 33.0	- 27.5	- 25.0	32 38.2	62 41 46.6
21		—	—	—	2 Cassiopeie.....	36 48 0.2	+ 7.2	- 29.8	47 35.1	31 26 49.7
22		—	—	—	ψ ¹ Aquarii.....	328 24 19.0	- 111.4	- 15.4	22 8.4	99 52 16.4
23		30.31	44.0	35.5	12 Andromedæ..	15 39 0.0	- 15.5	- 27.5	38 14.8	52 36 10.0
24		—	—	—	8184 B.A.C.	332 57 19.2	- 93.2	- 17.5	55 25.7	95 18 59.1
25		—	—	—	8221 B.A.C.	324 25 29.2	- 132.7	- 15.5	22 57.6	103 51 27.2
26		—	—	—	ω ² Aquarii	322 56 39.1	- 142.4	- 15.4	53 58.3	105 20 26.5
27		—	—	—	20 Piscium.....	334 42 31.7	- 87.4	- 19.0	40 42.6	93 33 42.2
28		30.31	42.4	33.4	8321 B.A.C.	60 37 42.0	+ 36.0	- 29.9	37 45.5	7 36 39.3
29		—	—	—	* 23 ^h 59 ^m 40 ^s ...	64 13 24.4	+ 41.3	- 29.4	13 33.9	4 0 50.9
30		—	—	—	42 Piscium ....R.	249 3 25.3	+ 49.3	+ 24.1	4 36.3	77 19 1.1
31		—	—	—	52 Piscium ....R.	242 14 27.6	+ 38.3	+ 25.5	15 27.6	70 29 52.4
32		—	—	—	1940 Gr.....S.P.	74 2 9.1	+ 58.7	- 26.8	2 38.2	5 48 13.4
33		30.31	40.9	33.5	296 B.A.C.	308 3 31.0	- 408.0	- 16.4	56 24.3	120 18 0.5

November 4. Index Cor. - 3".7; Run + 1".8.

November 5. Index Cor. - 3".6; Run + 1".8.

2 The fainter star.
5 Clouded over.
13 Thick fog.

26 Unsteady.
31 Ill defined.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg		° ' "	"	"	' "	° ' "
1	Nov. 5	30.31	40.6	33.5	40 Ceti.....	335 14 12.7	- 85.8	- 22.2	12 20.8	93 2 40
2		—	—	—	410 B.A.C.	344 55 12.1	- 60.9	- 23.8	53 43.9	83 20 40.9
3		—	—	—	454 B.A.C.	348 24 29.7	- 53.9	- 24.4	23 7.6	79 51 17.2
4		30.30	40.1	33.5	π Piscium.....	349 39 56.9	- 51.5	- 24.5	38 37.3	78 35 47.5
5		—	—	—	540 B.A.C.	23 45 38.3	- 6.6	- 26.5	45 1.8	44 29 23.0
6		—	—	—	56 Andromedæ..	14 47 47.1	- 16.5	- 25.9	47 2.1	53 27 22.7
7		30.30	40.0	32.6	54 Cassiopeie...	49 6 49.8	+ 21.1	- 24.8	6 43.2	19 7 41.6
8	6	30.43	44.0	34.6	δ S. L.	321 25 33.3	- 154.0	.....	33 27.4	105 40 57.4
9		—	—	—	49 Aquarii	312 49 38.0	- 261.8	- 6.6	45 6.0	115 29 18.8
10		—	—	—	36 Pegasi.....	346 39 27.7	- 57.4	- 18.3	33 8.3	81 36 16.5
11		—	—	—	7865 B.A.C.	338 7 24.4	- 77.5	- 15.9	5 43.3	90 8 36.5
12		30.43	42.6	34.6	11 Lacertæ	21 46 36.5	- 8.8	- 27.4	45 57.3	46 28 27.5
13		—	—	—	72 Aquarii.....	323 55 50.2	- 136.5	- 12.2	53 18.3	104 21 6.5
14		—	—	—	δ Aquarii.....	321 42 6.1	- 152.0	- 11.8	39 19.5	106 35 5.3
15		—	—	—	2 Piscium	338 27 45.5	- 76.5	- 17.5	26 8.9	89 48 15.9
16		—	—	—	β Pegasi	5 33 30.8	- 27.7	- 25.1	32 35.7	62 41 49.1
17		30.43	41.7	33.9	60 Pegasi.....	4 19 37.3	- 29.5	- 25.1	18 39.3	63 55 45.5
18		—	—	—	8126 B.A.C.	25 50 35.9	- 4.4	- 29.1	49 59.1	42 24 25.7
19		—	—	—	* 23 ^h 17 ^m 0 ^s	63 30 22.1	+ 40.3	- 30.1	30 28.9	4 43 55.9
20		—	—	—	ι Piscium .....R.	256 53 26.5	+ 65.1	+ 20.5	54 49.8	85 9 14.6
21		30.44	40.6	33.6	8298 B.A.C. ...R.	184 57 30.8	- 28.5	+ 30.5	57 30.1	13 11 54.9
22		—	—	—	33 Piscium	331 45 37.7	- 98.3	- 18.9	43 37.2	96 30 47.6
23		—	—	—	ι Ceti .....R.	328 39 17.4	- 111.3	- 18.8	37 3.6	99 37 21.2
24		—	—	—	1889 Gr. ....S.P.	73 46 49.8	+ 58.5	- 28.3	47 17.1	5 32 52.3
25		30.44	39.3	33.1	20 Ceti .....R.	263 39 32.0	+ 82.9	+ 21.8	41 13.0	91 55 37.8
26		—	—	—	ε Piscium .....R.	254 37 23.4	+ 60.2	+ 23.7	38 44.6	82 53 9.4
27		—	—	—	Polaris .....R.	173 13 24.7	- 45.7	+ 27.0	13 3.7	1 27 28.5
28		30.44	38.7	32.9	ζ Urs. Maj. (2d)	102 31 3.6	+ 191.9	- 21.4	33 51.0	34 19 26.2
29		—	—	—	477 B.A.C.	354 57 17.3	- 42.8	- 25.1	56 6.7	73 18 18.1
30		—	—	—	54 Andromedæ .	28 12 36.6	- 1.9	- 27.0	12 5.1	40 2 19.7
31		30.45	38.2	33.1	544 B.A.C.	15 29 12.1	- 15.8	- 26.4	28 26.1	52 45 58.7
32	8	30.02	45.1	42.9	δ S. L.	334 50 50.0	- 84.6	.....	55 3.5	92 19 21.3
33		—	—	—	10 Ceti.....	337 25 12.9	- 77.0	- 21.1	23 31.6	90 50 53.2

November 6. Index Cor. - 3".5; Run + 1".7.

November 8. Index Cor. - 3".3; Run + 1".7.

1 Unsteady.

4 Very unsteady.

8 Semi-diam. + 16' 0".6; Par. + 54' 30".S.

9 Flickering.

21 Ill defined.

26 Unsteady.

27 Very unsteady.

28 S.P.

31 Clouded over immediately after this observation.

32 Semi-diam. + 16' 25".6; Par. + 49' 15".5.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Nov. 8	30.02	45.1	42.4	13 Ceti.....	333 53 6.6	- 87.8	- 20.6	51 16.0	94 23 8.8
2		—	—	—	62 Piscium.....	344 46 37.1	- 59.5	- 23.3	45 11.6	83 29 13.2
3		—	—	—	36 Andromedæ..	1 6 18.7	- 32.7	- 26.3	5 16.8	67 9 8.0
4		—	—	—	* 6 ^h 54 ^m 5 ^s	37 35 51.5	+ 7.9	- 29.5	35 26.9	30 38 57.9
5		30.02	45.0	41.1	7 Ceti	327 19 52.7	- 114.1	- 20.2	17 35.1	100 56 49.7
6		—	—	—	39 Ceti.....	335 0 38.6	- 84.4	- 22.0	58 49.1	93 15 35.7
7		—	—	—	410 B.A.C.	344 55 11.0	- 59.4	- 23.8	53 44.6	83 20 40.2
8		—	—	—	444 B.A.C.	45 54 39.5	+ 16.9	- 28.1	54 24.9	22 19 59.9
9		—	—	—	477 B.A.C.	354 57 15.7	- 41.6	- 25.2	56 6.4	73 18 18.4
10		30.01	44.1	40.5	* 1 ^h 36 ^m 0 ^s	354 39 21.3	- 42.0	- 25.1	38 10.7	73 36 14.1
11		—	—	—	56 Andromedæ..	14 47 47.7	- 16.1	- 26.4	47 2.8	53 27 22.0
12		—	—	—	54 Cassiopeie ...	49 6 52.5	+ 20.6	- 25.7	6 44.7	19 7 40.1
13		30.01	43.9	40.2	A. Z. cxlv. 127...	26 57 10.8	- 3.2	- 25.8	56 39.2	41 17 45.6
14	10	29.31	42.4	33.5	161 B.A.C.	340 36 39.6	- 68.4	- 22.1	35 6.2	87 39 18.6
15		—	—	—	62 Piscium.....	344 46 37.1	- 59.2	- 23.3	45 11.7	83 29 13.1
16		—	—	—	144 Gr.	66 29 9.1	+ 43.5	- 29.4	29 19.5	1 45 5.3
17		—	—	—	ε Piscium.....	345 22 39.4	- 58.0	- 23.7	21 15.2	82 53 9.6
18		29.30	41.0	33.0	80 Piscium e ...	343 9 8.0	- 62.7	- 23.3	7 38.3	85 6 46.5
19		—	—	—	393 B.A.C.	56 12 35.6	+ 29.0	- 29.0	12 33.0	12 1 51.8
20		—	—	—	ω Andromedæ...	22 54 44.8	- 7.3	- 28.3	54 5.7	45 20 19.1
21		—	—	—	469 B.A.C.	355 58 59.9	- 39.7	- 25.4	57 51.1	72 16 33.7
22		—	—	—	7 Ceti.....	321 35 28.6	- 147.6	- 20.1	32 37.7	106 41 47.1
23		29.29	39.0	32.6	δ S. L.	349 26 8.8	- 50.3	.....	21 22.6	77 53 2.2
24		—	—	—	α Arietis	1 2 12.5	- 32.6	- 25.2	1 12.0	67 13 12.8
25		29.29	38.4	32.5	θ Arietis	357 29 28.4	- 37.5	- 24.7	28 22.6	70 46 2.2
26	12	29.67	41.8	38.9	8026 B.A.C.	61 48 54.3	+ 36.5	- 31.2	48 55.9	6 25 28.9
27	14	29.89	39.8	31.0	6 Andromedæ ...	21 1 25.3	- 9.5	- 29.1	0 43.6	47 13 41.2
28		—	—	—	8147 B.A.C.	358 17 56.5	- 37.2	- 24.2	16 52.5	69 57 32.3
29		—	—	—	8184 B.A.C.	332 57 17.5	- 92.7	- 17.0	55 25.0	95 18 59.8
30		—	—	—	λ Andromedæ...	23 55 46.1	- 6.4	- 30.2	55 6.2	44 19 18.6
31		29.89	37.8	31.0	78 Pegasi.....	6 49 12.7	- 25.8	- 27.1	48 16.1	61 26 8.7
32		—	—	—	8298 B.A.C.	55 2 37.5	+ 28.2	- 32.5	2 30.5	13 11 54.3

November 10. Index Cor. - 3".4; Run + 1".6.

12. Index Cor. - 3".4; Run + 1".5.

A hazy night.

November 14. Index Cor. - 3".5; Run + 1".5.

21 Nearest division.

23 Semi-diam. + 16' 38".4; Par. + 39' 28'.7;
thick haze.26 Nearest division; clouded over after this
single observation.

30 Light clouds.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refrac- tion.	Reduc- tion to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Nov. 14	29.89	37.2	31.2	ω Piscium	344 19 47.7	- 61.6	- 21.8	18 20.7	83 56 4.1
2					8374 B.A.C.	6 29 0.4	- 26.2	- 27.5	28 2.9	61 46 21.9
3		29.90	36.4	31.5	39 Piscium	353 47 29.8	- 44.1	- 24.8	46 13.1	74 28 6.7
4					47 Piscium	355 21 17.6	- 41.6	- 25.3	20 7.6	72 54 17.2
5					154 B.A.C.	59 56 15.7	+ 34.7	- 31.7	56 15.6	8 18 9.2
6					ϕ^1 Ceti	326 53 4.3	- 118.2	- 18.7	50 44.8	101 23 40.0
7					20 Ceti	263 39 31.6	+ 81.7	+ 21.3	41 11.0	91 55 35.8
8		29.90	35.8	31.2	350 B.A.C.	57 23 1.1	+ 31.2	- 30.5	22 59.2	10 51 25.6
9					Weisse i. 229 ...	341 1 51.0	- 69.1	- 22.9	0 16.1	87 14 8.7
10					Weisse i. 486 ...	349 52 38.7	- 50.7	- 24.6	51 20.7	78 23 4.1
11					* 1 ^h 36 ^m 0 ^s	354 39 20.4	- 42.7	- 25.3	38 8.7	73 36 16.1
12		29.90	35.2	31.0	3405 Lalande ...	1 39 34.8	- 32.5	- 26.1	38 32.6	66 35 52.2
13					A. Z. cliii. 106 ...	28 37 11.9	- 1.5	- 27.3	36 40.3	39 37 44.5
14					700 B.A.C.	34 42 51.0	+ 5.0	- 26.9	42 26.5	33 31 58.3
15					27 Arietis	355 19 27.4	- 41.7	- 24.3	18 17.7	72 56 7.1
16		29.91	35.0	30.6	802 B.A.C.	45 41 7.4	+ 16.9	- 25.1	40 56.0	22 33 28.8
17	19	29.97	45.0	44.8	78 Pegasi	6 49 12.4	- 25.1	- 27.3	48 16.1	61 26 8.7
18					R Cassiopeiæ	28 50 13.5	- 1.2	- 31.9	49 36.8	39 24 48.0
19					8374 B.A.C.	6 28 59.8	- 25.6	- 27.8	28 2.4	61 46 22.4
20		29.97	45.1	43.5	ϵ Ceti	328 39 13.9	- 107.3	- 17.7	37 5.0	99 37 19.8
21		29.98	45.2	45.2	201 B.A.C.	32 40 54.0	+ 2.7	- 52.1	40 21.2	35 34 3.6
22					2 Urs. Min.	63 43 15.3	+ 39.1	- 32.4	43 19.3	4 31 5.5
23	26	29.53	44.2	35.8	γ Cephei	55 4 17.4	+ 27.5	- 34.8	4 6.6	13 10 18.2
24					8298 B.A.C.	55 2 41.7	+ 27.4	- 35.0	2 31.9	13 11 52.9
25		29.53	44.1	39.0	1 Ceti	321 38 10.6	- 146.5	- 15.8	35 28.2	106 38 56.6
26		29.52	44.0	40.4	8374 B.A.C.	6 28 59.4	- 25.4	- 28.0	28 2.4	61 46 22.4
27		29.52	43.4	37.9	η Cassiop. (1st). ...	35 17 56.4	+ 5.4	- 33.5	17 26.2	32 56 58.6
28		29.52	43.4	38.9	ϵ Piscium	345 22 40.4	- 57.7	- 25.3	21 17.2	82 53 7.6
29					352 B.A.C.	22 49 20.4	- 7.4	- 31.4	48 38.2	45 25 46.6
30		29.52	43.0	39.0	35 Cassiopeiæ ...	42 8 54.1	+ 12.6	- 33.3	8 29.8	26 5 55.0
31		29.52	43.0	39.5	τ Andromedæ ...	18 6 56.0	- 12.3	- 29.9	6 11.3	50 8 13.5
32					ϵ Cassiopeiæ	41 12 17.9	+ 11.6	- 31.7	11 55.4	27 2 29.4
33		29.52	42.8	39.5	3825 Lalande ...	19 5 39.2	- 11.3	- 29.0	4 55.9	49 9 28.9

November 19. Index Cor. - 3".7; Run + 1".5. Cloudy sky, with short intervals clear.

26. Index Cor. - 3".2; Run + 1".8. A cloudy night.

- 1 Unsteady.
2 Nearest division.
7 Ill defined.
9 Very faint.
19 Nearest division.

- 22 Clouded over.
25 Very unsteady.
26 Nearest division.
28 Unsteady.
30 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Nov. 26	29.53	43.1	43.5	723 B.A.C.	311 41 36.4	-273.0	-16.4	36 44.4	116 37 40.4
2		29.53	43.7	41.9	84 Ceti.....	336 57 27.6	-77.2	-21.3	55 46.8	91 18 38.0
3					17 Persei.....	12 43 2.4	-18.1	-25.8	42 16.4	55 32 8.4
4		29.52	43.8	40.5	49 Arietis	4 8 43.4	-28.3	-24.4	7 47.0	64 6 37.8
5					94 Ceti	336 31 52.3	-78.6	-20.7	30 10.5	91 44 14.3
6					1025 B.A.C.	6 46 40.7	-25.0	-23.5	45 49.6	61 28 35.2
7		29.52	43.9	40.6	0 Tauri.....	346 46 51.9	-54.7	-21.4	45 33.3	81 28 51.5
8	27	29.59	44.9	37.9	0 ² Aquarii.....	322 56 29.9	-137.9	-13.4	53 56.1	105 20 28.7
9					8298 B.A.C.	55 2 41.5	+27.5	-35.1	2 31.9	13 11 52.9
10					8321 B.A.C.	60 37 49.7	+34.8	-35.2	37 47.3	7 36 37.5
11		29.60	44.0	37.3	33 Piscium	331 45 32.8	-94.8	-17.4	43 37.8	96 30 47.0
12					7 Pegasi	352 38 36.2	-44.9	-24.4	37 25.2	75 36 59.6
13					6 Ceti.....	328 39 11.8	-107.4	-17.0	37 4.1	99 37 20.7
14					81 B.A.C.	335 15 14.5	-83.1	-19.3	13 29.2	93 0 55.6
15		29.59	43.0	37.1	12 Ceti	333 31 2.9	-88.7	-18.9	29 12.7	94 45 12.1
16					154 B.A.C.	59 56 20.0	+33.9	-35.2	56 16.2	8 18 8.6
17					178 B.A.C.	2 5 47.4	-31.2	-27.5	4 46.0	66 9 38.8
18					225 B.A.C.	61 9 52.7	+35.7	-34.9	9 50.5	7 4 34.3
19		29.60	42.3	36.3	7 Cassiopeiae.....	38 11 0.4	+8.5	-33.9	10 32.4	30 3 52.4
20					26 Ceti	338 51 42.1	-73.2	-21.4	50 5.1	89 24 19.7
21					341 B.A.C.	353 10 0.5	-44.3	-25.4	8 47.8	75 5 37.0
22					393 B.A.C.	56 12 40.9	+29.2	-34.0	12 34.1	12 1 50.7
23		29.61	41.5	33.6	7 Piscium R.	247 8 20.2	+44.9	+25.3	9 28.6	75 23 53.4
24					107 Piscium... R.	242 10 35.4	+37.3	+26.3	11 36.2	70 26 1.0
25					α Trianguli ... R.	232 52 11.7	+24.9	+27.8	53 2.2	61 7 27.0
26		29.60	41.0	36.4	γ Androm.(1st) R.	220 6 41.2	+10.5	+29.4	7 18.7	48 21 43.5
27					20 Arietis	3 22 8.0	-29.6	-26.4	21 9.8	64 53 15.0
28		29.61	41.0	34.5	27 Arietis	355 19 25.6	-41.0	-24.6	18 16.8	72 56 8.0
29					802 B.A.C.	45 41 12.4	+16.7	-28.9	40 57.6	22 33 27.2
30					36 Arietis	355 24 39.0	-41.0	-24.1	23 30.8	72 50 54.0
31		29.61	40.9	32.0	17 Persei.....	12 43 4.0	-18.5	-25.9	42 17.7	55 32 7.1
32					ρ ¹ Eridani	330 2 29.7	-102.6	-19.9	0 25.1	98 13 59.7
33					9 Urs. Min... S.P.	85 53 44.0	+87.7	-24.0	54 44.2	17 40 19.4
34					94 Ceti.....	336 31 51.0	-80.2	-20.6	30 7.9	91 44 16.9

November 27. Index Cor. - 3".0; Run + 1".8.

4 Nearest division.
11 Unsteady.
18 Flickering.

21 Very unsteady.
25 Very unsteady.
33 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	" "	° ' "
1	Nov. 27	29.61	40.2	32.6	1025 B.A.C.	6 46 40.3	-25.5	-23.5	45 48.9	61 28 35.9
2		—	—	—	o Tauri	346 46 54.7	-55.8	-21.4	45 35.2	81 28 49.6
3		29.61	40.0	32.8	5 Tauri f'	350 42 3.2	-48.6	-21.5	40 50.8	77 33 34.0
4	28	29.56	41.1	31.3	κ Arietis	0 13 2.0	-34.1	-26.3	12 0.0	68 2 24.8
5		—	—	—	20 Arietis	3 22 8.3	-29.9	-26.5	21 9.9	64 53 14.9
6		—	—	—	741 B.A.C.	347 19 24.6	-54.9	-23.3	18 3.4	80 56 21.4
7		—	—	—	27 Arietis	355 19 27.8	-41.2	-24.6	18 19.0	72 56 5.8
8		29.56	39.1	31.0	79 Ceti	334 5 44.2	-87.8	-20.7	3 53.2	94 10 31.6
9		—	—	—	36 Arietis	355 24 41.5	-41.1	-24.1	23 33.4	72 50 51.4
10		—	—	—	17 Persei	12 43 3.4	-18.6	-26.1	42 17.1	55 32 7.7
11		29.56	38.5	30.7	47 Arietis	358 20 46.5	-36.7	-24.0	19 43.3	69 54 41.5
12		—	—	—	ε Persei	27 18 29.8	-2.8	-26.0	17 57.6	40 56 27.2
13		—	—	—	94 Ceti	336 31 53.3	-80.4	-20.5	30 10.3	91 44 14.5
14		—	—	—	1025 B.A.C.	6 46 41.5	-25.6	-23.6	45 50.1	61 28 34.7
15		—	—	—	o Tauri	346 46 54.1	-56.0	-21.4	45 34.6	81 28 50.2
16		—	—	—	5 Tauri f'	350 42 3.1	-48.8	-21.4	40 50.8	77 33 34.0
17		—	—	—	75 Eridani	316 11 3.2	-202.9	-17.6	7 20.3	112 7 4.5
18		29.56	37.2	30.4	21 Eridani	332 10 54.7	-94.5	-19.3	8 58.4	96 5 26.4
19	29	29.59	39.0	30.2	8321 B.A.C.	60 37 49.2	+35.4	-35.6	37 47.5	7 36 37.3
20		—	—	—	* 23 ^h 55 ^m 20 ^s ...	64 28 11.2	+41.0	-35.6	28 15.3	3 46 9.5
21		—	—	—	10 B.A.C.	309 32 57.9	-342.1	-10.1	27 4.3	118 47 20.5
22		29.58	37.7	30.4	46 B.A.C.	38 58 51.5	+9.4	-34.6	58 23.2	29 16 1.6
23		—	—	—	42 Piscium	350 56 57.4	-48.4	-24.0	55 23.1	77 19 1.7
24		—	—	—	98 B.A.C.	353 29 16.0	-44.2	-24.9	28 4.0	74 46 20.8
25		—	—	—	132 B.A.C.	336 51 54.9	-79.5	-20.0	50 13.6	91 24 11.2
26		—	—	—	174 B.A.C.	333 7 43.3	-91.3	-19.0	5 51.5	95 8 33.3
27		—	—	—	18 Ceti	324 37 11.6	-129.8	-16.5	34 43.6	103 39 41.2
28		—	—	—	20 Ceti	336 20 32.5	-81.1	-20.3	18 48.7	91 55 36.1
29		—	—	—	* 0 ^h 54 ^m 5 ^s	37 35 56.0	+8.0	-34.0	35 27.8	30 38 57.0
30		29.58	34.9	29.3	θ Cassiopeiæ	32 37 53.8	+2.8	-33.3	37 21.9	35 37 2.9
31		—	—	—	35 Cassiopeiæ ...	42 8 53.0	+12.9	-33.9	8 29.0	26 5 55.8
32		—	—	—	η Piscium	R. 247 8 17.7	+45.3	+25.3	9 27.0	75 23 51.8
33		—	—	—	α Trianguli	R. 232 52 9.6	+25.3	+28.0	53 1.2	61 7 26.0

November 28. Index Cor. — 2".8; Run + 1".9. November 29. Index Cor. — 2".6; Run + 2".0.

12 Nearest division.
22 Nearest division.

31 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Nov. 29	29.59	34.3	28.6	γ Androm. (1st) R.	220 6 37.7	+ 10.7	+ 29.7	7 16.2	48 21 41.0
2					η Arietis	358 47 23.5	- 36.3	- 25.8	46 19.8	69 28 5.0
3		29.59	34.1	28.4	α Ceti	334 38 13.5	- 86.6	- 20.8	36 24.8	93 38 0.0
4					A. Z. Ixiii. 24. ...	45 58 32.4	+ 17.2	- 29.9	58 16.5	22 16 8.3
5					12 Persei	17 50 2.4	- 13.0	- 27.3	49 19.5	50 25 5.3
6		29.59	34.0	25.6	39 Arietis	6 59 8.0	- 25.6	- 25.7	58 13.8	61 16 11.0
7					47 Arietis	358 20 47.7	- 37.1	- 24.0	19 44.3	69 54 40.5
8					τ^3 Eridani	314 7 9.9	- 235.2	- 17.0	2 56.0	114 11 28.8
9					979 B.A.C.	55 26 17.1	+ 28.6	- 26.5	26 17.1	12 48 7.7
10		29.59	33.9	27.5	12 Eridani	308 47 27.9	- 372.2	- 16.3	40 57.8	119 33 27.0
11	Dec. 1	29.78	35.9	28.1	* α^h 5 ^m 55 ^s	64 9 50.6	+ 41.0	- 36.0	9 52.7	4 4 32.1
12					10 Ceti	337 25 14.2	- 78.9	- 19.8	23 32.8	90 50 52.0
13					* α^h 25 ^m 20 ^s	62 32 16.2	+ 38.6	- 36.1	32 16.8	5 42 8.0
14					54 Piscium	358 43 53.6	- 36.8	- 26.6	42 47.0	69 31 37.8
15		29.78	33.6	26.6	221 B.A.C.	342 48 16.5	- 65.4	- 22.1	46 47.4	85 27 37.4
16					2 Urs. Min.	63 43 15.4	+ 40.4	- 35.6	43 18.6	4 31 6.2
17					26 Ceti	338 51 40.8	- 75.1	- 21.2	50 2.3	89 24 22.5
18					ζ Piscium (2d) ..	345 4 45.3	- 60.4	- 23.1	3 18.9	83 11 5.9
19					Weisse i. 229. ...	341 1 53.7	- 69.6	- 22.1	0 19.9	87 14 4.9
20					η Piscium	R. 247 8 17.1	+ 46.0	+ 25.2	9 26.7	75 23 51.5
21					107 Piscium ... R.	242 10 29.6	+ 38.2	+ 26.3	11 31.5	70 25 56.3
22					α Trianguli ... R.	232 52 6.2	+ 25.6	+ 28.1	52 57.9	61 7 22.7
23		29.78	31.0	25.0	γ Androm. (1st) R.	220 6 38.5	+ 10.9	+ 29.9	7 17.1	48 21 41.9
24					α Ceti	334 38 13.7	- 87.9	- 20.6	36 23.6	93 38 1.2
25					A. Z. Ixiii. 24. ...	45 58 32.6	+ 17.4	- 30.5	58 18.0	22 16 6.8
26					12 Persei	17 50 3.1	- 13.1	- 27.6	49 19.6	50 25 5.2
27		29.78	30.0	23.6	41 Arietis	4 55 12.7	- 28.5	- 25.4	54 16.1	63 20 8.7
28					932 B.A.C.	13 47 46.6	- 17.7	- 25.9	47 1.3	54 27 23.5
29					979 B.A.C.	55 26 17.8	+ 29.0	- 27.1	26 17.4	12 48 7.4
30		29.79	29.6	23.7	1024 B.A.C.	26 47 51.7	- 3.4	- 25.5	47 21.1	41 27 3.7
31					γ Urs. Min. ... S.P.	85 52 31.1	+ 89.8	- 23.4	53 35.7	17 39 10.9
32					5147 B.A.C. ... S.P.	93 31 11.5	+ 121.9	- 21.8	32 49.3	25 18 24.5
33		29.78	29.1	23.7	5177 B.A.C. ... S.P.	110 52 13.1	+ 364.8	- 19.6	57 56.3	42 43 31.5

December 1. Index Cor. - 2".8; Run + 1".9.

3 Very unsteady.
4 Nearest division.

14 Nearest division.
19 Too faint to bear any illumination.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Dec. 13	29.05	47.9	40.5	21 Eridani	332 10 50.1	-90.9	-17.4	8 57.5	96 5 27.3
2					30 Eridani	332 28 38.8	-89.9	-16.9	26 47.1	95 47 37.7
3	15	30.34	42.2	32.3	195 Gr.	64 36 55.8	+42.1	-38.6	36 55.8	3 37 29.0
4					33 Ceti	339 56 43.3	-72.7	-20.7	55 6.3	88 19 18.5
5					35 Cassiopeie ...	42 8 55.7	+13.1	-36.7	8 27.8	26 5 57.0
6					ω Andromedæ ...	22 54 50.6	-7.6	-33.1	54 5.9	45 20 13.9
7		30.34	41.0	32.3	44 Cassiopeie ...	38 4 18.2	+8.6	-35.5	3 47.1	30 10 37.7
8					545 B.A.C.	55 43 34.1	+29.4	-37.0	43 23.4	12 31 1.4
9					β Arietis	358 21 40.0	-37.6	-26.4	20 32.4	69 53 52.4
10					54 Cassiopeie ...	49 7 0.1	+21.2	-35.8	6 42.0	19 7 42.8
11		30.35	39.5	31.5	20 Arietis	3 22 10.0	-30.6	-27.2	21 8.8	64 53 16.0
12					741 B.A.C.	347 19 25.9	-56.3	-22.7	18 2.8	80 56 22.0
13					24 Boötis <i>g</i> ..S.P.	107 40 57.2	+273.7	-30.7	44 56.4	39 30 31.6
14					4845 B.A.C....S.P.	103 32 43.6	+204.4	-30.7	35 34.0	35 21 9.2
15		30.35	38.0	31.1	72 Eridani	316 42 5.0	-201.4	-14.5	38 25.6	111 35 59.2
16					6 Eridani	314 7 26.4	-238.9	-13.9	3 10.2	114 11 14.6
17					β Persei	18 38 58.6	-12.3	-27.7	38 14.3	49 36 10.5
18					12 Eridani	308 47 37.3	-378.5	-12.8	41 2.7	119 33 22.1
19		30.35	37.0	31.6	α Persei	27 35 37.6	-2.6	-27.6	35 3.6	40 39 21.2
20					1073 B.A.C.	310 30 30.3	-319.5	-13.1	24 53.8	117 49 31.0
21					1123 B.A.C.	15 21 50.0	-16.0	-24.6	21 5.9	52 53 18.9
22		30.36	36.7	31.6	λ Tauri	350 20 28.0	-50.6	-19.3	19 14.2	77 55 10.6
23					50 Persei	15 54 36.4	-15.3	-22.2	53 54.8	52 20 30.0
24					02 Eridani	330 23 37.3	-103.9	-15.5	21 34.8	97 52 50.0
25					63 Tauri	354 41 41.6	-43.3	-18.3	40 36.4	73 33 48.4
26					81 Tauri	353 37 59.4	-45.1	-17.6	36 53.5	74 37 31.3
27		30.36	36.2	30.7	53 Eridani	323 41 39.9	-138.7	-13.8	39 3.8	104 35 21.0
28	16	30.41	39.0	28.0	320 B.A.C.	57 8 54.9	+31.6	-33.4	8 44.0	11 5 40.8
29					358 B.A.C.	7 33 21.1	-25.5	-29.4	32 23.3	60 42 1.5
30					397 B.A.C.	340 47 51.4	-71.4	-21.0	46 15.9	87 28 8.9
31					95 Piscium	342 52 31.1	-66.4	-21.8	50 59.8	85 23 25.0
32					454 B.A.C.	348 24 32.5	-54.8	-23.6	23 10.2	79 51 14.6
33		30.41	37.0	27.0	42 Cassiopeie ...	48 8 17.0	+20.2	-37.0	7 57.3	20 6 27.5
December 13. Index Cor. - 4".5; Run + 1".4.						Stars very unsteady.				
15. Index Cor. - 4".0; Run + 1".3.						Night hazy; stars very unsteady.				
16. Index Cor. - 3".8; Run + 1".3.						Hazy sky.				

1—2 Clouded over after these observations.

2 Nearest division.

5 Nearest division.

17 Nearest division.

20 Extremely faint.

28 Nearest division.

30 Extremely faint.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	' "	° ' "
1	Dec. 16	30.41	36.7	27.0	540 B.A.C.	23 45 46.0	- 6.8	- 32.9	45 2.7	44 29 22.1
2		—	—	—	β Arietis	358 21 42.1	- 38.1	- 26.4	20 34.2	69 53 50.6
3		—	—	—	γ Androm. (1st) ..	19 53 21.6	- 11.0	- 31.6	52 36.1	48 21 48.7
4		—	—	—	6 Trianguli	7 52 53.4	- 25.1	- 28.4	51 56.9	60 22 27.9
5		30.40	35.0	27.1	ξ^2 Ceti	346 4 33.2	- 59.4	- 22.2	3 7.7	82 11 17.1
6		—	—	—	μ Ceti	252 14 7.4	+ 56.0	+ 22.2	15 21.6	80 29 46.4
7		—	—	—	ϵ Arietis	240 58 56.1	+ 37.0	+ 24.4	59 53.4	69 14 18.2
8		—	—	—	κ Persei	22 33 33.7	- 8.0	- 28.4	32 54.4	45 41 30.4
9		30.39	35.2	29.0	ζ Eridani	328 55 8.1	- 111.0	- 16.9	52 56.4	99 21 28.4
10		—	—	—	64 Arietis	2 28 2.7	- 32.1	- 23.7	27 3.9	65 47 20.9
11		—	—	—	1089 B.A.C.	25 42 27.3	- 4.6	- 26.9	41 52.6	42 32 32.2
12		—	—	—	10 Tauri	338 12 33.6	- 78.1	- 18.2	10 54.2	90 3 30.6
13		30.39	35.0	28.2	α^2 Eridani	330 23 36.0	- 104.7	- 15.3	21 33.1	97 52 51.7
14		—	—	—	ν^1 Tauri	0 44 21.6	- 34.5	- 18.8	43 24.3	67 31 0.5
15		—	—	—	ρ Tauri	352 47 48.0	- 46.8	- 17.2	46 40.9	75 27 43.9
16		30.39	35.0	28.1	τ Tauri (2d)	0 55 56.8	- 34.3	- 17.4	55 1.5	67 19 23.3
17	17	30.11	40.2	36.6	320 B.A.C.	57 8 54.8	+ 30.8	- 38.6	8 43.1	11 5 41.7
18		—	—	—	A.Z. civ. 16 S.P.	89 46 36.0	+ 102.6	- 37.1	47 38.3	21 33 13.5
19		—	—	—	* 13 ^h 21 ^m 50 ^s S.P.	73 35 1.1	+ 56.9	- 38.3	35 16.1	5 20 51.3
20		—	—	—	* 13 ^h 35 ^m 40 ^s S.P.	72 13 37.2	+ 54.2	- 37.8	13 50.9	3 59 26.1
21		30.09	40.8	38.5	51 Cassiopeiæ ...	52 8 3.5	+ 24.3	- 36.6	7 48.4	16 6 36.4
22		—	—	—	6 Persei	28 38 40.3	- 1.4	- 33.0	38 3.3	39 36 21.5
23		30.08	41.2	40.6	α Ceti	334 38 9.6	- 85.8	- 19.1	36 21.9	93 38 2.9
24	19	30.29	42.0	35.3	70 Piscium	345 25 38.6	- 59.5	- 22.2	24 13.9	82 50 10.9
25		—	—	—	352 B.A.C.	22 49 22.5	- 7.6	- 33.5	48 38.0	45 25 46.8
26	27	29.24	36.0	21.8	607 B.A.C.	358 36 58.1	- 36.6	- 26.2	35 53.5	69 38 31.3
27		—	—	—	58 Andromedæ ..	15 25 42.5	- 15.6	- 30.9	24 53.8	52 49 31.0
28		—	—	—	67 Ceti	331 11 9.0	- 99.1	- 17.1	9 10.8	97 5 14.0
29		—	—	—	750 B.A.C.	348 15 29.4	- 53.6	- 22.4	14 11.2	80 0 13.6
30		29.23	32.4	21.4	789 B.A.C.	345 6 22.0	- 59.9	- 21.2	4 58.9	83 9 25.9
31		—	—	—	892 B.A.C.	354 9 11.6	- 43.5	- 23.3	8 2.1	74 6 22.7
32		29.23	30.7	20.3	49 Arietis	4 8 46.2	- 29.2	- 25.7	7 48.5	64 6 36.3

December 17. Index Cor. - 3".6; Run + 1".3.
27. Index Cor. - 2".4; Run + 1".6.
unsteady.

December 19 Index Cor. - 3".2; Run + 1".3.
An unfavourable night; stars flickering and

7 Nearest division; ill defined.
17 Nearest division.
23 Scarcely to be seen; cloudy after this ob-
servation.

24—25 Clouded over immediately after these
observations.
32 Nearest division.

Ref. No.	Date.	Barom.	Therm.		Star.	Circle Reading Mean of 4 Microscopes reduced to the Meridian.	Refraction.	Reduction to Mean N.P.D.	Min. and Sec. of reduced Circle Reading.	Mean N.P.D. of Stars and Geo- centric N.P.D. of Planets' Centres.
			In.	Out.						
	1856.	Inches.	Deg.	Deg.		° ' "	"	"	"	° ' "
1	Dec. 27	29.23	30.7	20.3	γ 79 B.A.C.	55 26 27.0	+ 28.7	- 34.3	26 19.5	12 48 5.3
2		29.25	30.5	19.5	1565 B.A.C.	57 17 26.7	+ 31.2	- 20.3	17 36.0	10 56 48.8
3		—	—	—	λ Aurigæ.....	18 12 52.6	- 12.6	- 15.9	12 22.6	50 2 2.2
4		29.25	29.9	20.4	111 Tauri 355 30 6.0		- 41.4	- 12.8	29 9.4	72 45 15.4
5	29	29.99	36.0	34.9	ο ¹ Eridani 331 3 19.8		- 99.2	- 13.8	1 25.4	97 12 59.4
6		—	—	—	1337 B.A.C. 358 56 59.1		- 36.1	- 19.0	56 2.1	69 18 22.7
7		—	—	—	θ ² Tauri 353 48 19.1		- 43.8	- 17.4	47 16.5	74 27 8.3
8		—	—	—	ρ Tauri 352 47 45.7		- 45.4	- 16.8	46 41.9	75 27 42.9
9		—	—	—	σ ² Tauri 353 53 11.5		- 43.7	- 16.6	52 9.7	74 22 15.1
10		30.00	36.6	35.3	4 Camelopardi... 34 44 27.9		+ 5.0	- 22.3	44 7.9	33 30 16.9
11		—	—	—	1496 B.A.C. 52 16 38.4		+ 24.5	- 22.8	16 38.1	15 57 46.7
12		—	—	—	63 Eridani 327 47 50.4		- 113.1	- 10.8	45 44.9	100 28 39.9
13		—	—	—	ε Leporis 315 43 2.2		- 209.9	- 8.9	39 21.9	112 35 2.9
14		—	—	—	12 Aurigæ 24 29 38.1		- 5.8	- 17.3	29 12.4	43 45 12.4
15		—	—	—	1678 B.A.C. 337 15 36.8		- 78.6	- 10.6	14 5.3	91 0 19.5
16		29.99	36.9	35.1	α Leporis..... 320 21 32.8		- 160.2	- 8.3	18 42.3	107 55 42.5
17	31	29.98	44.1	45.7	10 Tanri 338 12 28.3		- 74.3	- 16.8	10 55.5	90 3 29.3
18		—	—	—	λ Tanri 350 20 23.5		- 48.5	- 18.6	19 14.0	77 55 10.8
19		29.97	45.8	46.7	1391 B.A.C. 354 8 3.8		- 42.3	- 17.3	7 2.7	74 7 22.1

December 29—31. Index Cor. - 2".5; Run + 1".6.

- 4 Very unsteady.
6 Temperature of the instrument 37°.0.
13 Very unsteady.

- 17 Faint.
18 Cloudy.
19 Temperature of the instrument 46°.8.

TABLE OF NADIR POINTS.

A correction = + 0".36 has been applied for errors of division.

Date.	Nadir Point.	Date.	Nadir Point.	Date.	Nadir Point.	Date.	Nadir Point.
	209° 59'		209° 59'		209° 59'		209° 59'
1856.	"	1856.	"	1856.	"	1856.	"
January 10	59.80	May 10	62.51	August 2	67.23	October 18	63.74
25	60.60	24	63.24	9	66.54	25	63.61
				16	66.81		
February 14	61.55	June 14	63.27	23	66.51	November 1	64.06
		27	67.27	30	65.96	8	63.29
						15	63.52
March 7	60.16			September 6	66.71	22	63.91
24	61.42	July 5	66.56	13	65.59	29	62.63
		12	65.63	20	65.02		
April 5	61.61	19	66.38	27	65.27	December 8	63.32
12	62.11	26	65.55			13	64.46
26	62.15			October 4	65.69	20	63.00
				11	65.38	27	62.37
June 27. This change in the Nadir Point appears from the observations to have occurred subsequently to June 25.				July 5. From this time the Nadir Point was observed every Saturday night.			

RUN OF MICROSCOPES.

Date.	Observed.	Adopted.	Date.	Observed.	Adopted.	Date.	Observed.	Adopted.
1856.	"	"	1856.	"	"	1856.	"	"
January 10	+ 1.18	+ 1.00	May 3	+ 0.48	+ 1.00	Septemb. 6	+ 0.81	
11	+ 0.50		20	+ 1.58		13	+ 1.02	
12	+ 1.82		—	+ 1.60		20	+ 1.18	
30	+ 1.10		28	+ 0.65		27	+ 1.33	
February 1	+ 0.45		—	+ 1.23	+ 1.50	October 4	+ 1.45	
12	+ 1.05		June 17	+ 1.70		11	+ 1.38	
14	+ 1.38		July 5	+ 1.40		18	+ 1.71	
29	+ 0.18		12	+ 1.65		25	+ 1.41	
March 7	+ 0.83	+ 0.50	19	+ 1.56		Novemb. 1	+ 1.86	
8	+ 0.53		26	+ 0.93		8	+ 1.68	
14	+ 0.38		August 2	+ 1.27		15	+ 1.43	
29	+ 1.45		9	+ 1.39		22	+ 1.49	
31	+ 1.15	+ 1.00	16	+ 1.51		29	+ 1.98	
April 1	+ 0.65		23	+ 0.99		Decemb. 8	+ 1.56	
12	+ 0.75		30	+ 1.01		13	+ 1.35	
15	+ 1.13					20	+ 1.30	
18	+ 0.65					27	+ 1.56	
24	+ 1.15							

July 5. From this time the Run was determined every Saturday night by comparing the readings of the four divisions 30° , 120° , 210° , and 300° , with those of the respective divisions above.

CATALOGUE OF STARS

OBSERVED IN THE YEAR 1856,

SHEWING THE RESULT OF EVERY OBSERVATION.

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1	α Andromedæ	Oct. 21 ..		0 0 ...	+3.084*	61 42 13.6	...	-19.90*	...
		Nov. 26 ..		57.16	.....	.....	...	.....	...
2	6 B.A.C.	Oct. 28 ..		0 1 28.09	+ 3.117	11 5 ...	...	.....	6.5
		Nov. 14 5		28.62	.....	.....	.	.....	6.5
3	87 Pegasi	Oct. 21 ..		0 1 37.09	+ 3.075	72 35 ...	...	.....	6.3
		Nov. 19 ..		37.08	.....	.....	...	.....	6.3
4	10 B.A.C.	Nov. 6 ..		0 2 0.55	+ 3.065	118 47 ...	...	-20.06	...
		29 ..		.....	.....	20.5	...	.....	...
5	6 Ceti.	Oct. 18 ..		0 3 55.91	+ 3.064	106 15 ...	...	.....	5.7
		24 ..		56.18	.....	.....	...	.....	5.7
		Nov. 24 ..		56.05	.....	.....	...	.....	6.0
6	γ Pegasi.	Oct. 21 ..		0 5 49.68	+3.081*	75 36 ...	...	-20.03*	...
		24 ..		.....	.....	.....	58.4	.....	...
		25 ..		.....	.....	.....	58.8	.....	...
		Nov. 6 ..		49.57	.....	.....	...	.....	...
		27 ..		49.51	.....	59.6	...	.....	...
		29 ..		49.36	.....	.....	...	.....	...
7	.....	Dec. 1 ..		0 5 55	.....	4 4 32.1	...	-20.05	...
8	.....	Oct. 28 .		0 6 40	.....	4 7 44.3	...	-20.05	9.0
		S.P. April 15 ..		.....	.....	42.9	...	.....	8.3
9	46 B.A.C.	Oct. 21 ..		0 9 14.56	+ 3.169	29 16 ...	...	-20.04	6.0
		Nov. 24 ..		14.86	.....	.....	...	.....	6.0
		29 ..		.....	.....	1.6	...	.....	6.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
10*	θ Andromedæ	Nov. 29 ..		0 9 34.66	+ 3.116	52 7 ...	...	.....	5.5
11	38 Piscium (1st) .	Oct. 27 ..		0 9 59.32	+ 3.081	81 56 ...	...	.....	8.5
12	38 Piscium (2d) ..	Oct. 24 ..		0 9 59.57	+ 3.081	81 56 ...	...	.....	7.5
13	39 Piscium	Nov. 14 ..		.....	+ 3.089	74 28 6.7	...	- 20.04	...
	.....	19 ..		0 10 21.91	.....	.....	...	.....	7.7
14*	ϵ Ceti	Nov. 6 ..		0 12 5	.....	99 37 21.2	...	- 20.03	...
	.....	19 ..		.....	.....	19.8	...	.....	...
	.....	27 ..		.....	.....	20.7	...	.....	...
15	42 Piscium	Oct. 21 ..		0 14 58.70	+ 3.092	77 19 ...	...	- 20.02	6.7
	.....	27 ..		.....	.....	3.0	...	.....	...
	.....	Nov. 5 ..		.....	.....	.....	1.1	.....	...
	.....	14 ..		58.75	.....	.....	...	.....	6.3
	.....	24 ..		58.81	.....	.....	...	.....	6.7
	.....	29 ..		.....	.....	1.7	...	.....	6.5
16	9 Ceti	Oct. 24 ..		0 15 29.06	+ 3.051	103 1 ...	...	.....	7.0
	.....	Nov. 5 ..		29.24	.....	.....	...	.....	6.5
	.....	27 ..		29.15	.....	.....	...	.....	6.7
17	81 B.A.C.	Oct. 25 ..		0 17 8.21	+ 3.066	93 0 ...	...	- 20.00	7.0
	.....	28 ..		8.13	.....	.....	...	.....	7.0
	.....	Nov. 27 ..		.....	.....	55.6	...	.....	6.7
18*	86 B.A.C.	Oct. 21 ..		0 17 ...	+ 3.625	10 44 45.2	...	- 20.00	7.7
	.....	27 ..		60.10	.....	.....	...	.....	6.3
	.....	Nov. 29 5		59.97	.....	.....	...	.....	7.0
	.....S.P.	April 15 ..		.....	.....	43.8	...	.....	...
19	10 Ceti	Nov. 8 ..		0 19 ...	+ 3.070	90 50 53.2	...	- 19.99	...
	.....	14 ..		14.31	.....	.....	...	.....	6.5
	.....	Dec. 1 ..		.....	.....	52.0	...	.....	...
20	96 B.A.C.	Oct. 21 ...		0 19 44.80	+ 3.060	95 48 ...	...	.....	7.7
	.....	Nov. 5 ...		44.85	.....	.....	...	.....	7.0
21	97 B.A.C.	Oct. 24 ...		0 19 57.00	+ 3.076	87 59 ...	...	.....	7.7

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
22	98 B.A.C.	Oct. 25 ..		0 20 2.12	+ 3.104	74 46 ...	...	- 19.98	7.3
		Nov. 29 ..		.....	.....	20.8	...	.....	6.7
23	47 Piscium	Oct. 24 ..		0 20 30	.....	72 54 ...	17.9	- 19.98	...
		..... 25 ..		.....	.....	.....	17.6	.....	...
		Nov. 14 ..		.....	.....	17.2	...	.....	...
24	11 Ceti.....	Dec. 1 ..		0 22 31.99	+ 3.067	91 55 ...	...	.....	...
25	67 Gr.	Oct. 28 3		0 22 33.05	+ 4.749	4 29 ...	...	.....	8.5
		Nov. 24 3		32.83	.....	.....	...	.....	8.3
		..... 27 3		32.77	.....	.....	...	.....	8.0
		S.P. April 16 3		33.57	.....	.....	...	.....	8.0
26	111 B.A.C.	Oct. 21 ..		0 22 34.16	+ 3.035	105 40 ...	...	.....	7.3?
27	12 Ceti.....	Nov. 14 ..		0 22 41.46	+ 3.061	94 45 ...	...	- 19.96	6.0
		..... 27 ..		.....	.....	12.1	...	.....	6.3
28	52 Piscium	Nov. 5 ..		0 25 0	.....	70 29 ...	52.4	- 19.94	...
29	.....	Oct. 27 ..		0 25 20	.....	5 42 8.1	...	- 19.93	8.0
		Dec. 1 ..		.....	.....	8.0	...	.....	...
30	132 B.A.C.	Oct. 21 ..		0 26 7.20	+ 3.068	91 24 ...	...	- 19.93	8.0
		Nov. 29 ..		.....	.....	11.2	...	.....	7.7
31	.....	Oct. 25 3		0 26 23.77	+ 4.506	6 7 ...	...	.....	7.0
		Nov. 6 5		24.20	.....	.....	...	.....	7.0
		..... 29 3		24.13	.....	.....	...	.....	7.3
32	137 B.A.C.	Nov. 5 ..		0 26 43.19	+ 3.098	80 29 ...	...	.....	7.3
		Dec. 1 ..		43.05	.....	.....	...	.....	...
33	138 B.A.C.	Oct. 27 ..		0 27 8.75	+ 3.057	95 21 ...	...	.....	7.0
34	.....	Oct. 25 3		0 27 24.56	+ 4.579	6 3 ...	...	.....	8.3
		Nov. 29 3		24.93	.....	.....	...	.....	8.3
35	.....	Oct. 25 3		0 27 46.36	+ 4.599	6 2 ...	...	.....	8.7
		Nov. 29 3		45.68	.....	.....	...	.....	8.7

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
36	13 Ceti.....	Nov. 8 ..		0 27 50	.....	94 23 8.8	...	— 19.91	...
37	154 B.A.C.....	Nov. 14 ..		0 29 4.88	+ 4.231	8 18 9.2	...	— 19.90	{ 6.5
	.....	27 3		5.09	.....	8.6	...	.....	{ 6.3
								{ ...
38	161 B.A.C.	Oct. 21 ..		0 30 5.88	+ 3.079	87 39 ...	...	— 19.88	6.7
	.....	Nov. 5 ..		5.95	.....	.....	...	.....	6.3
	.....	10 ..		.....	.....	18.6	...	.....	...
	.....	Dec. 1 ..		5.62	.....	.....	...	.....	6.5?
39	167 B.A.C.....	Oct. 21 ..		0 31 41.85	+ 3.079	87 40 ...	...	.....	8.3
	.....	Nov. 24 ..		41.92	.....	.....	...	.....	7.5
40	54 Piscium	Oct. 27 ..		0 31 52.65	+ 3.141	69 31 ...	...	— 19.86	6.0
	.....	28 ..		52.75	.....	.....	...	.....	6.7
	.....	Dec. 1 ..		.....	.....	37.8	...	.....	...
41	α Cassiopeiæ ... S.P.	April 16 ..		0 32 20	.....	34 15 10.2	...	— 19.82"	...
42	174 B.A.C.....	Nov. 29 ..		0 33 20	.....	95 8 33.3	...	— 19.84	7.0
43	178 B.A.C.....	Oct. 27 ..		0 33 58.26	+ 3.159	66 9 38.8	...	— 19.84	{ 6.0
	.....	Nov. 5 ..		58.24	.....	.....	...	.....	{ 6.0
	.....	14 ..		58.14	.....	.....	...	.....	6.3
	.....	27 ..		.....	.....	38.8	...	.....	...
44	β Ceti.....	Oct. 24 ..		0 36 21.69	+ 3.013*	108 47 ...	...	.....	...
	.....	25 ..		21.72	.....	.....	...	.....	...
	.....	28 ..		21.69	.....	.....	...	.....	...
45	ϕ^1 Ceti	Oct. 18 ..		0 36 55.71	+ 3.029	101 23 ...	...	— 19.80	5.5
	.....	21 ..		55.59	.....	.....	...	.....	...
	.....	Nov. 14 ..		.....	.....	40.0	...	.....	...
	.....	26 ..		55.62	.....	.....	...	.....	...
46	201 B.A.C.....	Oct. 21 ..		0 37 ...	+ 3.373	35 34 4.1	...	— 19.79	5.7
	.....	25 ..		.....	.....	2.6	...	.....	...
	.....	Nov. 6 ..		6.22	.....	.....	...	.....	5.7
	.....	19 ..		.....	.....	3.6	...	.....	...
	.....	24 ..		6.22	.....	.....	...	.....	6.0
	.....	27 ..		6.19	.....	.....	...	.....	6.0
	.....	29 ..		6.12	.....	.....	...	.....	6.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
47	204 B.A.C.....	Nov. 5 ..		0 37 46.16	+ 3.069	90 32 ...	...	.....	7.0
	.....	14 ..		46.04	.....	.....	...	.....	8.0
	.....	Dec. 1 ..		45.91	.....	.....	...	.....	7.7?
48	18 Ceti.....	Nov. 29 ..		0 38 15	.....	103 39 41.2	...	- 19.78	7.0
49	7 Cassiopeiæ.....	Oct. 24 ..		0 40 25.09	+ 3.434	32 56 ...	...	- 19.74	...
	.....	Nov. 10 ..		25.11	.....	.....	...	.....	...
	.....	26 ..		.....	.....	58.6	...	.....	...
	.....	S.P. April 24 ..		.....	.....	57.6	...	.....	...
50*	62 Piscium.....	Oct. 25 ..		0 40 49.49	+ 3.098	83 29 ...	...	- 19.74	6.5
	.....	Nov. 8 ..		.....	.....	13.2	...	.....	...
	.....	10 ..		.....	.....	13.1	...	.....	...
	.....	26 ..		49.40	.....	.....	...	.....	...
51	221 B.A.C.....	Oct. 18 ..		0 40 49.99	+ 3.090	85 27 ...	...	- 19.74	6.0
	.....	Dec. 1 ..		49.87	.....	37.4	...	.....	6.0
52	64 Piscium.....	Oct. 27 ..		0 41 25.03	+ 3.142	73 50 16.2	...	- 19.73	6.0
53	225 B.A.C.....	Nov. 19 ..		0 41 42.13	+ 5.020	7 4 ...	...	- 19.72	6.0
	.....	27 ..		.....	.....	34.3	...	.....	6.0
54	232 B.A.C.....	Oct. 24 ..		0 42 45	.....	39 16 36.6	...	- 19.71	...
55	φ ² Ceti.....	Nov. 5 ..		0 42 55.00	+ 3.022	101 25 ...	...	.....	...
	.....	24 ..		54.94	.....	.....	...	.....	5.7
	.....	27 ..		55.02	.....	.....	...	.....	6.0
56	144 Gr.	Nov. 10 ..		0 45 40	.....	1 45 5.3	...	- 19.64*	...
57	20 Ceti.....	Nov. 6 ..		0 45 40	.....	91 55 ...	37.8	- 19.66	...
	.....	14 ..		.....	.....	.....	35.8	.....	...
	.....	29 ..		.....	.....	36.1	...	.....	...
58*	ν ¹ Cassiopeiæ.....	Oct. 21 ..		0 46 ...	+ 3.506	31 48 27.9	...	- 19.64	5.5
	.....	24 ..		29.17	.....	.....	...	.....	5.3
	.....	25 ..		.....	.....	28.1	...	.....	...
	.....	Nov. 26 ..		28.78	.....	.....	...	.....	...
	.....	29 ..		29.14	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
59	36 Andromedæ ...	Oct. 27 ..		0 47 16.03	+ 3.187	67 9 ...	...	- 19.63	5.7
	.....	Nov. 8 ..		.....	.....	8.0	...	.....	6.3
	.....	27 ..		15.91	.....	.....	...	.....	5.5
60	γ Cassiopeiæ	Nov. 27 ..		0 48 0	.....	30 3 52.4	...	- 19.62	...
	.....S.P.	May 23 ..		.....	.....	50.1	...	.....	...
61	2 Urs. Min.	Oct. 27 ..		0 49 ...	+ 6.784*	4 31 6.8	...	- 19.58*	...
	.....	Nov. 10 3		49.42	.....	.....	...	.....	...
	.....	19 ..		.....	.....	5.5	...	.....	...
	.....	Dec. 1 3		50.04	.....	6.2	...	.....	...
	.....S.P.	April 21 3		50.14	.....	.....	...	.....	4.3
62	270 B.A.C.	Oct. 21 ..		0 50 51.60	+ 3.104	83 56 ...	...	.....	7.7
	.....	Nov. 19 6		51.43	.....	.....	...	.....	...
	.....	24 ..		51.63	.....	.....	...	.....	7.0
63	195 Gr.	Oct. 24 ..		0 52 55	.....	3 37 28.3	...	- 19.55*	7.0
	.....	Dec. 15 ..		.....	.....	29.0	...	.....	...
64*	.....	Oct. 24 ..		0 54 5.64	+ 3.600	30 38 ...	...	- 19.50	8.7
	.....	Nov. 8 ..		.....	.....	57.9	...	.....	9.5
	.....	29 ..		.....	.....	57.0	...	.....	9.5
65	70 Piscium	Dec. 19 ..		0 54 40	.....	82 50 10.9	...	- 19.49	8.0
66	ε Piscium	Nov. 6 ..		0 55 ...	+ 3.112	82 53 ...	9.4	- 19.47	...
	.....	10 ..		28.45	.....	9.6	...	.....	...
	.....	26 6		28.32	.....	7.6	...	.....	...
67	290 B.A.C.	Oct. 21 ..		0 55 48.04	+ 3.506	36 34 3.1	...	- 19.46	7.3
	.....	Nov. 24 ..		47.96	.....	.....	...	.....	7.5
	.....	Dec. 1 ..		48.08	.....	.....	...	.....	7.0
68*	26 Ceti	Oct. 27 ..		0 56 24.68	+ 3.075	89 24 ...	...	- 19.45	6.5
	.....	Nov. 27 ..		.....	.....	19.7	...	.....	6.7
	.....	Dec. 1 ..		.....	.....	22.5	...	.....	...
69	296 B.A.C.	Nov. 5 ..		0 56 ...	+ 2.882	120 18 0.5	...	- 19.45	...
	.....	27 ..		25.06	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
70	μ Cassiopeiae...S.P.	May 20	..	0 58 40	.....	35 47 17.1	...	— 19.40	...
	.....	22	..	.....	.....	18.2	...	.....	...
71	41 Andromedæ S.P.	May 19	..	0 59 45	.....	46 49 33.5	...	— 19.38	...
72	320 B.A.C.....	Dec. 16	..	1 0 0	.....	11 5 40.8	...	— 19.37	...
	.....	17	..	.....	.....	41.7	...	.....	6.3
73	78 Piscium	Nov. 14	..	1 0 3.85	+ 3.282	58 45 ..	...	.....	6.3
74	ψ^2 Piscium	Nov. 24	..	1 0 14.05	+ 3.198	70 2 ...	...	.....	6.0
75	29 Ceti.....	Oct. 24	..	1 0 ...	+ 3.079	88 45 38.6	...	— 19.36	7.5
	.....	Nov. 27	..	34.24	.....	.....	...	.....	6.7
76	80 Piscium <i>e</i>	Nov. 10	..	1 0 57.33	+ 3.102	85 6 46.5	...	— 19.35	...
77	η Ceti.....	Nov. 8	..	1 1 20	.....	100 56 49.7	...	— 19.34	...
78	β Andromedæ	Nov. 26	..	1 1 40.90	+ 3.320	55 9 ...	...	.....	...
79	θ Cassiopeiae	Nov. 29	..	1 2 20	.....	35 37 2.9	...	— 19.32	...
80	32 Cassiopeiae.....	Dec. 1	..	1 2 21.43	+ 3.816	25 45 ...	...	.....	5.7
81	341 B.A.C.....	Nov. 27	..	1 2 ...	+ 3.168	75 5 37.0	...	— 19.31	...
	.....	29	..	33.55	.....	.....	...	.....	6.3
82*	33 Ceti.....	Dec. 15	..	1 3 10	.....	88 19 18.5	...	— 19.30	...
83*	350 B.A.C.....	Nov. 14	..	1 4 0	.....	10 51 25.6	...	— 19.28	...
84	.....S.P.	April 19	3	1 4 12.43	+ 8.601	3 50 ...	...	.....	8.5
	.....	24	3	11.96	.....	.....	...	.....	8.3
85	352 B.A.C.....	Oct. 27	..	1 4 14.58	+ 3.436	45 25 ...	...	— 19.27	6.3
	.....	Nov. 26	..	.....	.....	46.6	...	.....	...
	.....	Dec. 19	..	.....	.....	46.8	...	.....	...
86	358 B.A.C.....	Nov. 24	..	1 5 4.22	+ 3.282	60 42 ...	...	— 19.25	6.5?
	.....	Dec. 16	..	.....	.....	1.5	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
87*	ζ Piscium (1st)...	Nov. 14 ..		1 6 12.74	+ 3.118	83 11 ...	...	.....	...
88*	ζ Piscium (2d) ...	Nov. 8 ..		1 6 14.28	+ 3.118	83 11 ...	...	- 19.22	6.5
	.....	Dec. 1 ..		.....	.....	5.9	...	.....	...
89	Polaris (1st) ... S.P.	May 9 3		1 6 21.88	+ 18.035	1 28 ...	...	.....	...
90	Polaris	Nov. 6 ..		1 6 ...	+ 18.223*	1 27 ...	28.5	- 19.21*	...
	..... S.P.	May 9 3		48.35	.....	.....	...	.....	...
	.....	13 3		49.39	.....	.....	...	.....	...
	.....	19 3		48.52	.....	30.2	...	.....	...
	.....	20 3		48.59	.....	29.5	...	.....	...
	.....	22 3		48.84	.....	.....	...	.....	...
91	37 Ceti	Oct. 24 ..		1 7 ...	+ 3.013	98 41 53.3	...	- 19.20	...
	.....	Nov. 26 ..		8.88	.....	.....	...	.....	...
	.....	Dec. 1 ..		8.75	.....	.....	...	.....	5.5
	.....	15 ..		8.89	.....	.....	...	.....	5.7
92	378 B.A.C.	Nov. 27 ..		1 8 27.86	+ 4.751	13 12 ...	...	.....	6.5
93*	39 Ceti	Oct. 27 ..		1 9 20	.....	93 15 35.0	...	- 19.15	7.0
	.....	Nov. 8 ..		.....	.....	35.7	...	.....	6.0
94	40 Ceti	Nov. 5 ..		1 9 40	.....	93 2 4.0	...	- 19.14	...
95*	393 B.A.C.	Nov. 10 ..		1 11 ...	+ 4.991	12 1 51.8	...	- 19.09	...
	.....	24 5		14.73	.....	.....	...	.....	...
	.....	27 ..		.....	.....	50.7	...	.....	6.0
	.....	Dec. 1 3		14.88	.....	.....	...	.....	6.3
	.....	17 4		15.10	.....	.....	...	.....	...
96	35 Cassiopeiæ	Nov. 10 ..		1 11 30.83	+ 3.910	26 5 ...	...	- 19.09	...
	.....	26 ..		.....	.....	55.0	...	.....	...
	.....	29 ..		.....	.....	55.8	...	.....	6.7
	.....	Dec. 15 ..		.....	.....	57.0	...	.....	...
97	397 B.A.C.	Nov. 5 ..		1 11 57.42	+ 3.090	87 28 ...	...	- 19.08	7.5
	.....	8 ..		57.24	.....	.....	...	.....	7.7
	.....	Dec. 16 ..		.....	.....	8.9	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
98*	Weisse i. 229.....	Nov. 14 ..		1 14 50	.....	87 14 8.7	...	— 19.00	...
	.....	Dec. 1 ..		.....	.....	4.9	...	.....	...
99	410 B.A.C.	Nov. 5 ..		1 15 ..	+ 3.123	83 20 40.9	...	— 18.98	...
	.....	8 ..		.....	.....	40.2	...	.....	...
	.....	Dec. 1 ..		25.25	.....	.....	...	.....	7.7
100*	ψ Cassiopeia.....	Nov. 26 ..		1 15 49.20	+ 4.114	22 37 ..	...	— 18.97	...
	..... S.P.	May 13 ..		.....	.....	24.8	...	.....	...
101	δ Cassiopeia.....	Oct. 28 ..		1 16 25	.....	30 30 55.3	...	— 18.95	...
102	418 B.A.C.	Nov. 27 ..		1 16 43.11	+ 2.866	115 6 ...	...	.....	7.5?
103	θ^1 Ceti.....	Oct. 25 ..		1 16 49.58	+ 2.996*	98 56 ..	...	.....	...
	.....	27 ..		49.86	.....	.....	...	.....	...
	.....	Nov. 8 ..		49.60	.....	.....	...	.....	...
104	ω Andromedæ....	Nov. 10 ..		1 19 ..	+ 3.519	45 20 19.1	...	— 18.87	...
	.....	24 ..		3.67	.....	.....	...	.....	5.3?
	.....	Dec. 1 ..		3.42	.....	.....	...	.....	...
	.....	15 ..		.....	.....	18.9	...	.....	...
105	95 Piscium.....	Dec. 16 ..		1 20 10	.....	85 23 25.0	...	— 18.84	...
106	38 Cassiopeia A..	Nov. 5 5		1 20 34.99	+ 4.305	20 39 ..	...	.....	5.5
	.....	Dec. 16 ..		35.13	.....	.....	...	.....	...
107	444 B.A.C.	Nov. 8 ..		1 22 ..	+ 4.212	22 19 59.9	...	— 18.78	...
	.....	27 ..		1.88	.....	.....	...	.....	6.7
108	μ Piscium.....	Nov. 26 ..		1 22 38.66	+ 3.117	84 36 ..	...	.....	...
109	452 B.A.C.	Nov. 8 ..		1 23 35.73	+ 2.830	116 57 ..	...	.....	6.5
110	η Piscium.....	Nov. 27 ..		1 23 50	.....	75 23 ..	53.4	— 18.73	...
	.....	29 ..		.....	.....	.....	51.8	.....	...
	.....	Dec. 1 ..		.....	.....	.....	51.5	.....	...
111	454 B.A.C.	Nov. 5 ..		1 24 6.25	+ 3.158	79 51 17.2	...	— 18.72	7.0
	.....	Dec. 16 ..		.....	.....	14.6	...	.....	...

No.	Star.	Date of Obs.	No. of Wires	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	" "	" "	" "	
112	469 B.A.C.	Nov. 10 ..		1 27 0	.....	72 16 33.7	...	- 18.63	...
113	477 B.A.C.	Nov. 6 ..		1 28 10	.....	73 18 18.1	...	- 18.59	...
	.....	8 ..		.....	.....	18.4	...	.....	...
114*	Weisse i. 486.	Nov. 14 ..		1 28 ..	+ 3.174	78 23 4.1	...	- 18.57	9.5
	.....	27 ..		25.63	.....	.....	...	.....	9.5
115	51 Andromedæ ...	Nov. 5 ..		1 29 10.41	+ 3.633	42 6 ..	...	.....	...
	.....	8 ..		10.39	.....	.....	...	.....	...
116	π Piscium	Nov. 5 ..		1 29 ..	+ 3.175	78 35 47.5	...	- 18.55	...
	.....	Dec. 1 ..		28.14	.....	.....	...	.....	5.7
117	491 B.A.C.	Dec. 15 ..		1 30 25.87	+ 2.980	100 9 ..	...	.....	6.7?
118	42 Cassiopeïæ....	Dec. 16 ..		1 31 50.32	+ 4.496	20 6 27.5	...	- 18.47	...
	..... S.P.	May 13 ..		.....	.....	26.7	...	.....	...
119	504 B.A.C.	Nov. 29 ..		1 32 4.26	+ 2.820	115 45 ..	...	.....	...
120	τ Andromedæ	Nov. 10 ..		1 32 5.65	+ 3.508	50 8 ..	...	- 18.46	...
	.....	26 ..		.....	.....	13.5	...	.....	...
121*	508 B.A.C.	Nov. 26 ..		1 32 46.34	+ 3.912	32 6 ..	...	.....	...
122	509 B.A.C.	Dec. 17 ..		1 32 55.17	+ 3.979	30 11 ..	...	.....	7.0
123	514 B.A.C.	Nov. 27 ..		1 33 31.53	+ 3.370	60 41 ..	...	.....	6.3
124	44 Cassiopeïæ	Dec. 15 ..		1 33 40	.....	30 10 37.7	...	- 18.40	...
125*	3095 Lalande	Dec. 1 ..		1 33 43.88	+ 3.244	72 5 ..	...	.....	8.3
126*	54 Andromedæ ...	Nov. 6 ..		1 34 40	.....	40 2 19.7	...	- 18.37	...
127	107 Piscium	Nov. 27 ..		1 34 ..	+ 3.263	70 25 ..	61.0	- 18.37	...
	.....	Dec. 1 ..		.....	.....	.....	56.3	.....	...
	.....	15 ..		41.09	.....	.....	...	.....	6.0?
128*	.....	Nov. 8 ..		1 35 ..	+ 3.232	73 36 14.1	...	- 18.32	9.7
	.....	14 ..		.....	.....	16.1	...	.....	9.3
	.....	29 ..		59.70	.....	.....	...	.....	9.7

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
129	τ Ceti.....	Nov. 10 ..		1 37 22.75	+ 2.906	106 41 47.1	...	- 18.27	...
	.....	26 ..		22.59	.....	.....	...	.....	...
	.....	27 ..		22.64	.....	.....	...	.....	...
130	535 B.A.C.	Nov. 8 ..		1 37 23.02	+ 4.159	26 52 ...	...	.....	6.0
	.....	Dec. 1 5		22.86	.....	.....	...	.....	5.7
	.....	17 5		22.76	.....	.....	...	.....	5.7
131	ϵ Sculptoris.....	Dec. 15 ..		1 38 54.11	+ 2.802	115 46 ...	...	.....	...
132	540 B.A.C.	Nov. 5 ..		1 38 ...	+ 3.641	44 29 23.0	...	- 18.21	...
	.....	6 ..		58.75	.....	.....	...	.....	6.3
	.....	Dec. 16 ..		58.75	.....	22.1	...	.....	...
133	544 B.A.C.	Nov. 6 ..		1 40 10	.....	52 45 58.7	...	- 18.17	...
134	545 B.A.C.	Dec. 15 ..		1 40 30	.....	12 31 1.4	...	- 18.16	...
135*	3285 Lalande	Nov. 27 ..		1 40 40.04	+ 3.298	68 19 ...	...	.....	8.3
136*	3310 Lalande	Nov. 14 ..		1 41 22.86	+ 3.348	64 15 ...	...	.....	7.3
	.....	26 ..		22.74	.....	.....	...	.....	...
137	ϵ Cassiopeiæ	Nov. 26 ..		1 44 5	.....	27 2 29.4	...	- 18.02	...
	..... S.P.	May 13 ..		.....	.....	30.2	...	.....	...
138*	3405 Lalande	Nov. 14 ..		1 44 ...	+ 3.326	66 35 52.2	...	- 18.02	7.3
	.....	27 ..		9.45	.....	.....	...	.....	6.7
139	ζ Ceti	Nov. 8 ..		1 44 21.23	+ 2.956	101 3 ...	...	.....	...
	.....	Dec. 16 ..		21.32	.....	.....	...	.....	...
140	α Trianguli	Nov. 26 ..		1 44 53.22	+ 3.398	61 7 ...	...	- 18.00	...
	.....	27 ..		.....	.....	.....	27.0	.....	...
	.....	29 ..		.....	.....	.....	26.0	.....	...
	.....	Dec. 1 ..		.....	.....	.....	22.7	.....	...
	.....	17 ..		52.87	.....	.....	...	.....	...
141*	.....	Nov. 14 ..		1 45 6.75	+ 3.404	60 40 ...	...	.....	9.5
142	γ Arietis (south).	Nov. 29 ..		1 45 38.15	+ 3.272	71 25 ...	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
143*	3484 Lalande	Dec. 15 ..		1 46 33.86	+ 3.397	61 33 ...	...	.....	9.3
144	β Arietis	Nov. 5 ..		1 46 41.52	+ 3.291	69 53 ...	...	- 17.92	...
	.....	Dec. 15 ..		.....	.....	52.4	...	.....	...
	.....	16 ..		.....	.....	50.6	...	.....	...
145	56 Andromedæ ...	Nov. 5 ..		1 47 ...	+ 3.520	53 27 22.7	...	- 17.89	...
	.....	8 ..		36.77	.....	22.0	...	.....	6.0 ...
146	409 Gr.	Nov. 27 5		1 48 56.92	+ 5.319	25 14 ...	...	.....	8.5
147	47 Cassiopeiæ ...	Nov. 14 5		1 50 51.10	+ 5.679	13 25 ...	...	.....	5.7
	.....	Dec. 16 5		51.28	.....	.....	...	.....	...
	.....	17 5		51.42	.....	.....	...	.....	...
148	.....	Dec. 15 3		1 51 35.61	+ 26.833	1 31 ...	...	.....	8.5
149	607 B.A.C.	Dec. 27 ..		1 51 40	.....	69 38 31.3	...	- 17.72	...
150*	3653 Lalande	Nov. 5 ..		1 51 41.68	+ 3.558	52 6 ...	...	.....	8.0
151	612 B.A.C.	Nov. 8 ..		1 52 26.15	+ 3.131	84 40 ...	...	.....	7.5
	.....	Dec. 1 ..		26.01	.....	.....	...	.....	7.5
152	112 Piscium	Nov. 27 ..		1 52 39.90	+ 3.099	87 36 ...	...	.....	5.7
153*	51 Cassiopeiæ ...	Nov. 29 ..		1 53 2.20	+ 5.263	16 6 ...	...	- 17.67	7.7
	.....	Dec. 17 ..		.....	.....	36.4	...	.....	...
154	α Piscium (1st)...	Nov. 5 ..		1 54 35.91	+ 3.095	87 56 ...	...	.....	...
155	γ Andromedæ (1st)	Nov. 27 ..		1 55 5	.....	48 21 ...	43.5	- 17.58	...
	.....	29 ..		.....	.....	.....	41.0	.....	...
	.....	Dec. 1 ..		.....	.....	.....	41.9	.....	...
	.....	16 ..		.....	.....	48.7	...	.....	...
156	γ Andromedæ (2d)	Dec. 27 ..		1 55 5.55	+ 3.643	48 22 ...	...	.....	...
157	10 Arietis	Dec. 17 ..		1 55 29.45	+ 3.376	64 46 ...	...	.....	...
158	54 Cassiopeiæ ...	Nov. 5 ..		1 56 50	.....	19 7 41.6	...	- 17.51	...
	.....	8 ..		.....	.....	40.1	...	.....	7.3
	.....	Dec. 15 ..		.....	.....	42.8	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
159*	3825 Lalande	Nov. 26 ..		h. m. s. 1 57 10	.....	49 9 28.9	...	— 17.49	7.5
160*	.....	Nov. 27 ..		1 57 13.04	+ 3.640	41 3 ...	...	.....	9.0
161	641 B.A.C.	Dec. 15 ..		1 57 15.43	+ 3.153	82 57 ...	...	.....	...
162*	κ Arietis	Nov. 28 ..		1 58 30	.....	68 2 24.8	...	— 17.43	...
163	α Arietis	Nov. 10 ..		1 59 3.95	+ 3.364*	67 13 12.8	...	— 17.26*	...
	.....	29 ..		3.85	.....	.....	...	.....	...
	.....	Dec. 17 ..		3.84	.....	.....	...	.....	...
164	58 Andromedæ ...	Dec. 27 ..		1 59 48.54	+ 3.578	52 49 31.0	...	— 17.38	{ 5.7 ... }
	.....	28 ..		.....	.....	.....	...	.....
165	β Trianguli	Dec. 16 ..		2 0 59.42	+ 3.531	55 42 ...	...	.....	...
166*	A. Z. cliii. 106. ...	Nov. 14 ..		2 1 15	.....	39 37 44.5	...	— 17.32	7.7
167*	16 Arietis	Nov. 14 ..		2 3 1.03	+ 3.394	64 45 ...	...	.....	...
168	669 B.A.C.	Nov. 29 ..		2 3 18.72	+ 3.330	69 18 ...	...	.....	7.7
	.....	Dec. 16 ..		18.91	.....	.....	...	.....	...
169	64 Ceti	Dec. 15 ..		2 3 45.09	+ 3.167	82 6 ...	...	.....	...
170*	A. Z. cxlv. 127. ...	Nov. 8 ..		2 3 50	.....	41 17 45.6	...	— 17.20	8.0
171*	6 Trianguli	Dec. 16 ..		2 4 0	.....	60 22 27.9	...	— 17.19	...
172	6 Persei	Dec. 17 ..		2 4 0	.....	39 36 21.5	...	— 17.19	...
173	η Arietis	Nov. 29 ..		2 4 45	.....	69 28 5.0	...	— 17.16	...
174	66 Ceti (1st)	Dec. 27 ..		2 5 25.44	+ 3.034	93 4 ...	...	.....	8.3?
175	66 Ceti (2d)	Dec. 1 ..		2 5 26.35	+ 3.034	93 4 ...	...	.....	6.0
176	20 Arietis	Nov. 8 ..		2 7 31.95	+ 3.402	64 53 ...	...	— 17.03	6.7
	.....	27 ..		.....	.....	15.0	...	.....	...
	.....	28 ..		.....	.....	14.9	...	.....	...
	.....	29 ..		31.82	.....	.....	...	.....	6.0
	.....	Dec. 15 ..		31.98	.....	16.0	...	.....	{ 6.3 2 ... }

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
177	700 B.A.C.	Nov. 14 ..	14	2 8 ...	+ 4.148	33 31 58.3	...	- 16.96	...
	.....	27 ..		59.56	.....	.....	...	.....	6.0
	.....	Dec. 17 ..		59.54	.....	.....	...	.....	...
178*	4249 Lalande	Dec. 1 ..	1	2 9 47.77	+ 2.980	97 15 ...	...	.....	8.0
	.....	16 ..		47.59	.....	.....	...	.....	...
179	67 Ceti	Nov. 14 ..	14	2 9 48.07	+ 2.982	97 5 ...	...	- 16.92	...
	.....	Dec. 27 ..		.....	.....	14.0	...	.....	...
180	θ Arietis	Nov. 10 ..	10	2 10 7.41	+ 3.323	70 46 2.2	...	- 16.91	...
181	708 B.A.C.	Nov. 29 ..	29	2 10 32.79	+ 3.086	88 56 ...	...	.....	6.0
182	o Ceti.....	Nov. 29 ..	29	2 12 ...	+ 3.025	93 38 0.0	...	- 16.82	6.0
	.....	Dec. 1 ..		.....	.....	1.2	...	.....	...
	.....	16 ..		4.55	.....	.....	...	.....	...
	.....	17 ..		.....	.....	2.9	...	.....	...
183	723 B.A.C.	Nov. 26 ..	26	2 12 30	.....	116 37 40.4	...	- 16.80	...
184	725 B.A.C.	Dec. 27 ..	27	2 13 1.29	+ 4.190	33 16 ...	...	.....	7.7
185*	741 B.A.C.	Nov. 28 ..	28	2 16 ...	+ 3.192	80 56 21.4	...	- 16.59	...
	.....	Dec. 1 ..		49.15	.....	.....	...	.....	7.3
	.....	15 ..		.....	.....	22.0	...	.....	...
186	742 B.A.C.	Nov. 27 ..	27	2 16 57.40	+ 2.628	120 31 ...	...	.....	...
187	66 Andromedæ ...	Nov. 8 ..	8	2 18 13.59	+ 3.973	40 5 ...	...	.....	6.5
	.....	14 ..		13.34	.....	.....	...	.....	...
188	750 B.A.C.	Dec. 15 ..	15	2 18 27.21	+ 3.206	80 0 ...	...	- 16.51	8.0
	.....	27 ..		.....	.....	13.6	...	.....	...
189*	11 Trianguli	Dec. 27 ..	27	2 18 56.44	+ 3.533	58 51 ...	...	.....	6.0
190	.....	Nov. 26 2	2	2 20 23.15	+ 15.344	3 35 ...	...	.....	...
	.....	29 3	3	24.27	.....	.....	...	.....	8.0
	.....	Dec. 17 2	2	24.71	.....	.....	...	.....	...
	..... S.P.	May 28 3	3	24.37	.....	.....	...	.....	7.7
	.....	June 3 3	3	24.65	.....	.....	...	.....	7.3

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
191	ξ ² Ceti	Dec. 16 ..		2 20 30	.....	82 11 17.1	...	— 16.40	...
192	27 Arietis	Nov. 14 ..		2 22 55	.....	72 56 7.1	...	— 16.28	...
	.....	27 ..		.....	.....	8.0	...	.....	6.3
	.....	28 ..		.....	.....	5.8	...	.....	...
193*	A. Z. lxiii. 24.	Nov. 27 ..		2 23 30.39	+ 4.986	22 16 ...	...	— 16.25	6.5
	.....	29 ..		.....	.....	8.3	...	.....	6.7
	.....	Dec. 1 ..		.....	.....	6.8	...	.....	...
194*	σ Ceti	Nov. 14 ..		2 25 15.92	+ 2.846	105 53 ...	...	.....	...
	.....	Dec. 1 ..		15.86	.....	.....	...	.....	...
195	785 B.A.C.	Nov. 28 ..		2 26 55.99	+ 4.072	38 40 ...	...	— 16.11	7.5?
	.....S.P.	May 22 ..		.....	.....	14.6	...	.....	...
196*	784 B.A.C.	Dec. 1 3		2 27 20.58	+ 8.030	9 10 ...	...	.....	5.7
197	789 B.A.C.	Dec. 15 ..		2 27 27.06	+ 3.168	83 9 ...	...	— 16.05	6.7
	.....	27 ..		.....	...	25.9	...	.....	...
198*	77 Ceti	Dec. 16 ..		2 27 36.47	+ 2.952	98 29 ...	...	.....	...
199	79 Ceti	Nov. 14 ..		2 28 6.90	+ 3.013	94 10 ...	...	— 16.01	...
	.....	28 ..		.....	.....	31.6	...	.....	...
200*	795 B.A.C.	Dec. 27 5		2 28 37.32	+ 5.417	19 0 ...	...	.....	7.3
201	802 B.A.C.	Nov. 14 ..		2 30 5	.....	22 33 28.8	...	— 15.91	7.5
	.....	27 ..		.....	.....	27.2	...	.....	7.0
202*	ν Arietis	Nov. 29 5		2 30 38.75	+ 3.391	68 40 ...	...	.....	5.7
203	810 B.A.C.	Nov. 14 ..		2 31 18.48	+ 3.217	79 59 ...	...	.....	6.7
	.....	27 ..		18.58	.....	.....	...	.....	7.0
	.....	28 ..		18.42	.....	.....	...	.....	7.0
204	12 Persci	Nov. 29 ..		2 33 10	.....	50 25 5.3	...	— 15.74	...
	.....	Dec. 1 ..		.....	.....	5.2	...	.....	...
205	84 Ceti	Nov. 26 ..		2 33 ..	+ 3.053	91 18 38.0	...	— 15.70	...
	.....	Dec. 1 ..		51.58	.....	.....	...	.....	6.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
206*	μ Arietis	Dec. 16 ..		2 34 15.40	+ 3.365	70 36 ...	...	.....	...
207	θ Persei	Dec. 27 ..		2 34 23.14	+ 4.018	41 23 ...	...	.....	...
208	γ Ceti	Jan. 10 ..		2 35 ...	+ 3.100*	87 22 22.0	...	- 15.41*	...
	.....	Nov. 14 ..		50.56	.....	.....	...	.....	...
	.....	27 ..		50.56	.....	.....	...	.....	...
	.....	28 ..		50.56	.....	.....	...	.....	...
	.....	Dec. 15 ..		50.55	.....	.....	...	.....	...
209*	ζ Arietis	Nov. 27 ..		2 36 ...	+ 3.332	72 50 54.0	...	- 15.57	...
	.....	28 ..		.....	.....	51.4	...	.....	7.3
	.....	29 ..		17.21	.....	.....	...	.....	6.7
210	δ Arietis	Dec. 16 ..		2 37 10	.....	80 29 ...	46.4	- 15.52	...
211	τ Eridani	Nov. 27 ..		2 38 23.30	+ 2.775	109 11 ...	...	.....	...
212	ζ Arietis	Nov. 29 ..		2 39 ...	+ 3.540	61 16 11.0	...	- 15.40	...
	.....	Dec. 1 ..		20.46	.....	.....	...	.....	...
	.....	17 5		20.55	.....	.....	...	.....	...
213	η Arietis	Jan. 14 ..		2 41 30	.....	63 20 7.2	...	- 15.28	...
	.....	15 ..		.....	.....	8.2	...	.....	...
	.....	Dec. 1 ..		.....	.....	8.7	...	.....	...
214	ν Persei	Nov. 28 ..		2 41 30.28	+ 3.742	52 17 ...	...	.....	...
	.....	Dec. 15 ..		30.47	.....	.....	...	.....	...
	.....	16 ..		30.42	.....	.....	...	.....	...
215	ξ Persei	Nov. 26 ..		2 42 40	.....	55 32 8.4	...	- 15.20	...
	.....	27 ..		.....	.....	7.1	...	.....	5.5
	.....	28 ..		.....	.....	7.7	...	.....	5.7
216*	τ Eridani	Nov. 29 ..		2 44 30.52	+ 2.724	111 35 ...	...	- 15.11	...
	.....	Dec. 1 ..		30.69	.....	.....	...	.....	...
	.....	15 ..		.....	.....	59.2	...	.....	...
217*	δ Arietis	Nov. 27 ..		2 45 10.99	+ 3.323	74 6 ...	...	- 15.07	6.5
	.....	Dec. 15 ..		10.85	.....	.....	...	.....	6.7
	.....	16 ..		11.01	.....	.....	...	.....	7.0?
	.....	27 ..		.....	.....	22.7	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
218	ρ^3 Arietis.....	Nov. 28 ..		2 48 18.60	+ 3.353	72 33 ..	...	.....	6.3
	.....	Dec. 1 ..		18.78	.....	.....	...	.....	5.7
219	η Eridani.....	Nov. 27 ..		2 49 23.84	+ 2.921	99 28 ..	...	.....	...
	.....	Dec. 16 5		23.95	.....	.....	...	.....	...
220	47 Arietis.....	Nov. 28 ..		2 49 50	.....	69 54 41.5	...	— 14.80	6.5
	.....	29 ..		.....	.....	40.5	...	.....	...
221	908 B.A.C.....	Nov. 29 5		2 49 50.03	+ 8.711	9 6 ..	...	.....	6.3
222	ϵ Arietis	Jan. 10 ..		2 51 0	.....	69 14 15.4	...	— 14.73	...
	.....	Dec. 16 ..		.....	.....	.....	18.2	.....	...
223*	6 Eridani	Dec. 15 ..		2 51 40	.....	114 11 14.6	...	— 14.69	...
224	932 B.A.C.....	Nov. 28 ..		2 52 15.81	+ 3.724	54 27 ..	...	— 14.65	7.3
	.....	Dec. 1 ..		.....	.....	23.5	...	.....	...
225*	49 Arietis.....	Nov. 26 ..		2 53 ..	+ 3.517	64 6 37.8	...	— 14.58	...
	.....	Dec. 15 ..		25.51	.....	.....	...	.....	7.0
	.....	27 ..		.....	.....	36.3	...	.....	...
226	ρ^1 Eridani.....	Nov. 27 ..		2 54 5.46	+ 2.938	98 13 59.7	...	— 14.54	...
227	α Ceti	Jan. 10 ..		2 54 45.46	+ 3.126*	86 29 ..	...	.....	...
	.....	Dec. 1 ..		45.27	.....	.....	...	.....	...
228*	ρ^2 Eridani.....	Nov. 28 ..		2 55 38.33	+ 2.937	98 15 ..	...	.....	...
229	ρ Persei.....	Dec. 17 ..		2 55 57.82	+ 3.805	51 43 ..	...	.....	...
230	τ^3 Eridani.....	Nov. 29 ..		2 56 0	.....	114 11 28.8	...	— 14.42	...
231	ι Persei	Jan. 11 ..		2 58 ..	+ 4.155	40 56 25.1	...	— 14.26	...
	.....	Nov. 28 ..		.....	.....	27.2	...	.....	...
	.....	Dec. 1 ..		41.95	.....	.....	...	.....	...
	.....	15 ..		41.88	.....	.....	...	.....	...
232	β Persei	Dec. 15 ..		2 58 50	.....	49 36 10.5	...	— 14.25	...

No.	Star.	Date of Obs.	No. of Wires	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
233	595 Gr.	Nov. 26	5	2 58 59.94	+ 12.652	5 37 ...	...	.....	...
	.....	Dec. 16	3	60.18	.....	.....	...	.....	...
	.....	27	5	60.46	.....	.....	...	.....	...
234	κ Persei.....	Nov. 28	..	2 59 48.09	+ 3.994	45 41 ...	...	- 14.19	...
	.....	Dec. 16	..	.....	.....	30.4	...	.....	...
	.....	17	..	47.88	.....	.....	...	.....	...
235	976 B.A.C.....	Jan. 12	..	3 1 5	.....	69 47 29.9	...	- 14.11	...
236*	979 B.A.C.....	Nov. 29	..	3 2 10	.....	12 48 7.7	...	- 14.05	...
	.....	Dec. 1	..	.....	.....	7.4	...	.....	...
	.....	27	..	.....	.....	5.3	...	.....	...
237	δ Arietis	Jan. 14	..	3 3 25	.....	70 49 14.1	...	- 13.97	...
238	94 Ceti	Nov. 26	..	3 5 25	.....	91 44 14.3	...	- 13.84	...
	.....	27	..	.....	.....	16.9	...	.....	...
	.....	28	..	.....	.....	14.5	...	.....	...
239	12 Eridani.....	Jan. 14	..	3 5 57.27	+ 2.522	119 33 ...	...	- 13.81	...
	.....	Nov. 29	..	.....	.....	27.0	...	.....	...
	.....	Dec. 1	..	57.47	.....	.....	...	.....	...
	.....	15	..	57.39	.....	22.1	...	.....	...
240*	1001 B.A.C.	Jan. 10	..	3 7 ...	+ 5.175	24 52 45.4	...	- 13.72	...
	.....	11	..	.....	.....	44.1	...	.....	...
	.....	15	..	.....	.....	44.5	...	.....	...
	.....	Nov. 28	5	22.04	.....	.....	...	.....	...
241*	ζ Eridani	Dec. 1	..	3 8 50.57	+ 2.910	99 21 ...	...	- 13.62	...
	.....	16	..	.....	.....	28.4	...	.....	...
242	14 Eridani.....	Jan. 10	..	3 9 36.87	+ 2.903	99 41 ...	...	.....	...
	.....	Dec. 15	..	37.13	.....	.....	...	.....	6.3
243	95 Ceti	Nov. 26	..	3 11 0.43	+ 3.047	91 27 ...	...	.....	...
244	1024 B.A.C.	Dec. 1	..	3 11 40	.....	41 27 3.7	...	- 13.44	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
245	1025 B.A.C.	Nov. 26 ..		3 11 40	.....	61 28 35.2	...	- 13.44	...
	.....	27 ..		.....	.....	35.9	...	.....	...
	.....	28 ..		.....	.....	34.7	...	.....	...
246	κ^1 Ceti	Jan. 14 ..		3 11 50	.....	87 9 37.9	...	- 13.43	...
247	60 Arietis	Nov. 28 ..		3 11 53.79	+ 3.538	64 52 ...	...	.....	6.7
	.....	Dec. 1 ..		53.89	.....	.....	...	.....	6.7
248	α Persei	Jan. 10 ..		3 14 3.81	+4.241*	40 39 ...	...	- 13.23*	...
	.....	14 ..		3.75	.....	.....	...	.....	...
	.....	Nov. 26 ..		3.80	.....	.....	...	.....	...
	.....	Dec. 15 ..		.....	.....	21.2	...	.....	...
249*	6247 Lalande	Dec. 1 ..		3 15 46.31	+ 3.366	73 48 ...	...	.....	8.5
250*	64 Arietis	Jan. 11 ..		3 15 50	.....	65 47 18.6	...	- 13.17	...
	.....	Dec. 16 ..		.....	.....	20.9	...	.....	...
251	1055 B.A.C.	Dec. 15 ..		3 16 12.67	+ 3.470	68 28 ...	...	.....	7.3
252*	0 Tauri	Jan. 14 ..		3 17 3.89	+ 3.224	81 28 ...	...	- 13.09	...
	.....	Nov. 26 ..		4.24	.....	51.5	...	.....	...
	.....	27 ..		.....	.....	49.6	...	.....	...
	.....	28 ..		4.17	.....	50.2	...	.....	...
253	642 Gr. S.P.	May 28 3		3 19 46.20	+18.406	3 49 ...	...	.....	...
	.....	June 10 3		45.79	.....	.....	...	.....	...
	.....	17 3		46.79	.....	.....	...	.....	...
254*	66 Arietis	Nov. 29 ..		3 20 1.81	+ 3.492	67 42 ...	...	.....	...
	.....	Dec. 1 ..		1.87	.....	.....	...	.....	6.3
	.....	27 ..		1.64	.....	.....	...	.....	6.5
255	1073 B.A.C.	Dec. 15 ..		3 20 17.96	+ 2.531	117 49 31.0	...	- 12.87	...
256*	5 Tauri f'	Nov. 27 ..		3 22 55	.....	77 33 34.0	...	- 12.69	...
	.....	28 ..		.....	.....	34.0	...	.....	...
257	1089 B.A.C.	Jan. 10 ..		3 23 10.02	+ 4.201	42 32 ...	...	- 12.68	...
	.....	Nov. 27 ..		9.96	.....	.....	...	.....	7.0
	.....	Dec. 16 ..		.....	.....	32.2	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
				h.	m.	s.		D.	R.		
258*	6 Tauri /	Jan. 10 ..	10 ..	3	24	...	+ 3.235	81 6 55.4	...	- 12.57	...
		.....	14 ..	.....	.....	.....	.....	55.9	...	.....	...
		Nov. 28 ..	28 ..	.....	48.58	.....	.....	.....	...	.....	...
		Dec. 1 ..	1 ..	.....	48.81	.....	.....	.....	...	.....	6.0
		.....	15 ..	.....	48.67	.....	.....	.....	...	.....	...
259	ε Eridani	Jan. 15 ..	15 ..	3	26	...	+ 2.888	99 56 53.3	...	- 12.47	...
		Nov. 29 ..	29 ..	.....	8.90	.....	.....	.....	...	.....	...
260*	τ ⁵ Eridani	Jan. 10 ..	10 ..	3	27	25.65	+ 2.644	112 7 ..	...	- 12.39	...
		.....	12 6	.....	25.79	.....	.....	.....	...	.....	...
		Nov. 28 ..	28 ..	.....	.....	.....	.....	4.5	...	.....	...
		Dec. 27 ..	27 ..	.....	25.88	.....	.....	.....	...	.....	...
261	1110 B.A.C.	Jan. 14 ..	14 ..	3	29	24.06	+ 3.074	89 53 ..	...	.....	6.3?
		.....	15 ..	.....	24.27	.....	.....	.....	...	.....	...
262	10 Tauri	Dec. 16 ..	16 ..	3	29	30	.....	90 3 30.6	...	- 12.24	...
		.....	31 ..	.....	.....	.....	.....	29.3	...	.....	...
263	1121 B.A.C.	Jan. 10 ..	10 ..	3	31	16.28	+ 2.449	120 18 ..	...	.....	...
264	1123 B.A.C.	Jan. 25 ..	25 ..	3	31	50	.....	52 53 17.3	...	- 12.09	...
		Dec. 15 ..	15 ..	.....	.....	.....	.....	18.9	...	.....	...
265	21 Eridani.....	Nov. 28 ..	28 ..	3	31	...	+ 2.957	96 5 26.4	...	- 12.08	...
		Dec. 13 ..	13 ..	.....	54.66	.....	.....	27.3	...	.....	...
266	1127 B.A.C.	Dec. 27 ..	27 ..	3	32	26.25	+ 5.560	23 15 ..	...	.....	6.5
267	δ Persci.....	Nov. 28 ..	28 ..	3	32	41.21	+ 4.233	42 41 ..	...	.....	...
		Dec. 31 ..	31 ..	.....	41.37	.....	.....	.....	...	.....	...
268*	22 Eridani.....	Jan. 15 ..	15 ..	3	33	30	.....	95 40 43.9	...	- 11.97	...
269	14 Tauri	Jan. 10 ..	10 ..	3	35	28.01	+ 3.448	70 48 ..	...	.....	...
270	18 Tauri.....	Jan. 14 ..	14 ..	3	36	34.54	+ 3.563	65 37 ..	...	.....	6.7
		Nov. 28 ..	28 ..	.....	34.50	.....	.....	.....	...	.....	7.0
271	δ Eridani	Jan. 11 ..	11 ..	3	36	35	.....	100 15 10.9	...	- 11.75	...
		.....	12 ..	.....	.....	.....	.....	12.4	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
272*	19 Tauri	Jan. 12 ..	12	3 36 38.69	+ 3.555	65 59 ...	...	.....	...
	.....	Dec. 13 ..	13	38.55	.....	.....	...	.....	...
273	1155 B.A.C.	Jan. 15 ..	15	3 37 19.18	+ 3.526	67 18 ...	...	.....	7.0
	.....	Dec. 31 ..	31	19.01	.....	.....	...	.....	...
274	7 Tauri	Jan. 12 ..	12	3 38 55.85	+ 3.550*	66 20 ...	...	- 11.52*	...
	.....	.....	14	55.82	.....	.....	...	.....	...
	.....	.....	23	.....	.....	34.7	...	.....	...
	.....	Dec. 27 ..	27	55.75	.....	.....	...	.....	...
	.....	.....	31 5	55.82	.....	.....	...	.....	...
275*	π Eridani	Jan. 10 ..	10	3 39 20.12	+ 2.828	102 33 ...	...	.....	...
276*	27 Tauri	Dec. 13 ..	13	3 40 36.40	+ 3.551	66 23 ...	...	.....	...
277*	28 Tauri	Dec. 27 ..	27	3 40 37.61	+ 3.553	66 18 ...	...	.....	...
	.....	.....	31	37.49	.....	.....	...	.....	...
278	1187 B.A.C.	Jan. 15 ..	15	3 41 22.17	+ 3.559	66 6 ...	...	.....	7.7
279*	31 Tauri u^2	Jan. 10 ..	10	3 44 19.76	+ 3.191	83 54 ...	...	- 11.19	6.3
	.....	.....	15	.....	.....	4.1	...	.....	...
	.....	.....	25	19.84	.....	3.8	...	.....	6.3? ...
280	1205 B.A.C.	Jan. 14 ..	14	3 44 50.09	+ 3.041	91 35 ...	...	.....	7.5
	.....	Dec. 16 ..	16	50.09	.....	.....	...	.....	7.3?
281*	30 Eridani	Dec. 13 ..	13	3 45 35	.....	95 47 37.7	...	- 11.10	...
282	43 Persei A	Dec. 13 ..	13	3 45 55.28	+ 4.413	39 44 ...	...	.....	...
283*	32 Eridani (2d)...	Jan. 12 ..	12	3 47 3.63	+ 3.005	93 23 ...	...	.....	...
284*	1229 B.A.C.	Jan. 25 ..	25	3 49 45.45	+ 2.790	104 1 ...	...	.....	...
285	γ^1 Eridani	Jan. 11 ..	11	3 51 ...	+ 2.794*	103 55 13.7	...	- 10.56*	...
	.....	.....	12	18.76	.....	.....	...	.....	...
	.....	.....	14	18.62	.....	.....	...	.....	...
	.....	.....	15	18.74	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						P.	R.		
				h. m. s.	s.	° ' "	"	"	
286	λ Tauri	Jan. 25 ..		3 52 ..	+ 3.315	77 55 10.0	...	— 10.58	...
	.....	Dec. 15 ..		.....	.....	10.6	...	.....	...
	.....	29 ..		42.44	.....	.....	...	.....	...
	.....	31 ..		.....	.....	10.8	...	.....	...
287*	τ^9 Eridani	Jan. 10 ..		3 53 47.12	+ 2.554	114 26 ..	...	.....	...
	.....	25 ..		47.22	.....	.....	...	.....	...
	.....	Dec. 16 ..		47.39	.....	.....	...	.....	...
288	1247 B.A.C.	Dec. 15 5		3 55 16.81	+ 13.022	6 34 ..	...	.....	5.5
	.....	16 3		17.25	.....	.....	...	.....	...
289*	ν Tauri	Jan. 14 ..		3 55 29.97	+ 3.184	84 25 ..	...	.....	...
290	37 Tauri A ¹	Jan. 15 ..		3 56 11.58	+ 3.528	68 19 ..	...	.....	...
291*	μ Tauri	Jan. 12 ..		3 57 46.72	+ 3.664	62 47 ..	...	.....	...
	.....	25 ..		46.97	.....	.....	...	.....	6.0
292*	.....	Jan. 10 ..		3 57 53.95	+ 3.481	70 29 ..	...	.....	8.7
293	49 Persei	Jan. 14 ..		3 58 44.97	+ 3.953	52 39 ..	...	.....	6.7
	.....	Dec. 29 ..		44.83	.....	.....	...	.....	...
294	50 Persei	Dec. 15 ..		3 59 0	.....	52 20 30.0	...	— 10.10	...
295	1273 B.A.C.	Jan. 15 5		3 59 41.43	+ 2.455	118 3 ..	...	.....	...
296	ω^1 Tauri	Jan. 11 ..		4 0 45	.....	70 46 29.5	...	— 9.97	...
297	45 Tauri	Jan. 15 ..		+ 3 40	.....	84 51 19.0	...	— 9.75	...
298	1286 B.A.C.	Jan. 14 ..		4 4 14.47	+ 5.225	28 31 ..	...	.....	6.5
	.....	25 ..		14.39	.....	.....	...	.....	...
	.....	Dec. 15 ..		14.01	.....	.....	...	.....	6.3
299	ϕ^1 Eridani	Dec. 29 ..		4 4 50	.....	97 12 59.4	...	— 9.66	...
300	δ Tauri	Jan. 10 ..		4 7 36.00	+ 3.389	74 58 ..	...	.....	...
	.....	Dec. 29 ..		36.01	.....	.....	...	.....	...
301	1308 B.A.C.	Jan. 14 ..		4 8 20.46	+ 2.376	120 29 ..	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
302	o ² Eridani.....	Jan. 12 ..	12 ..	4 8 38.74	+ 2.908	97 52 ...	...	— 9.36	...
	.....	Dec. 15 ..	15 ..	.....	.....	50.0	...	.....	...
	.....	.....	16 ..	.....	.....	51.7	...	.....	...
303*	ω ² Tauri.....	Jan. 15 ..	15 ..	4 8 49.47	+ 3.508	69 47 ...	...	.....	5.7
304	γ Tauri.....	Jan. 12 ..	12 ..	4 11 35	.....	74 43 24.8	...	— 9.13	...
	.....	.....	15 ..	.....	.....	.....	27.1	.....	...
	.....	.....	30 ..	.....	.....	27.4	...	.....	...
	.....	Feb. 1 ..	1 ..	.....	.....	28.2	...	.....	...
305	55 Tauri.....	Jan. 10 ..	10 ..	4 11 40.47	+ 3.417	73 50 ...	...	.....	7.3
	.....	.....	28 ..	40.53	.....	.....	...	.....	...
306	57 Tauri <i>h</i>	Jan. 12 ..	12 ..	4 11 51.31	+ 3.362	76 19 ...	...	.....	...
	.....	Dec. 15 ..	15 ..	51.35	.....	.....	...	.....	6.0
307	58 Tauri.....	Jan. 14 ..	14 ..	4 12 26.58	+ 3.386	75 15 ...	...	.....	5.7
	.....	Dec. 29 ..	29 ..	26.59	.....	.....	...	.....	...
308	1337 B.A.C.	Jan. 15 ..	15 ..	4 13 2.16	+ 3.523	69 18 ...	...	— 9.02	7.3
	.....	Dec. 29 ..	29 ..	.....	.....	22.7	...	.....	...
309	δ ¹ Tauri.....	Jan. 10 ..	10 ..	4 14 40	.....	72 47 ...	56.0	— 8.90	...
	.....	.....	11 ..	.....	.....	.....	55.8	.....	...
	.....	.....	25 ..	.....	.....	54.5	...	.....	...
310	63 Tauri.....	Dec. 15 ..	15 ..	4 15 9.58	+ 3.426	73 33 48.4	...	— 8.86	6.0 }
311	δ ² Tauri.....	Jan. 14 ..	14 ..	4 15 47.95	+ 3.442	72 54 ...	...	.....	...
	.....	.....	28 ..	47.95	.....	.....	...	.....	...
312*	Weisse iv. 329....	Jan. 15 ..	15 ..	4 16 27.92	+ 3.263	80 59 ...	...	.....	8.5
313	κ ² Tauri.....	Dec. 29 ..	29 ..	4 16 50.64	+ 3.555	68 8 ...	...	.....	...
314*	70 Tauri.....	Jan. 10 ..	10 ..	4 17 24.39	+ 3.409	74 24 ...	...	.....	7.0
315	υ ¹ Tauri.....	Dec. 16 ..	16 ..	4 17 40	.....	67 31 0.5	...	— 8.66	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
316	R Tauri	Jan. 15 ..		4 20 24.56	+ 3.283	80 10 ...	...	.....	8.0
	.....	28 ..		24.59	.....	.....	...	.....	...
	.....	Dec. 15 ..		24.63	.....	.....	...	.....	8.5
317	θ^2 Tauri.	Dec. 29 ..		4 20 30	.....	74 27 8.3	...	— 8.44	...
318	79 Tauri <i>b</i>	Jan. 10 ..		4 20 46.29	+ 3.346	77 17 ...	...	.....	5.5
319	1391 B.A.C.	Jan. 14 ..		4 22 19.48	+ 3.418	74 7 ...	...	— 8.29	...
	.....	Dec. 31 ..		.....	.....	22.1	...	.....	...
320	81 Tauri	Dec. 15 ..		4 22 ...	+ 3.407	74 37 31.3	...	— 8.28	...
	.....	16 ..		26.23	.....	.....	...	.....	...
321	83 Tauri	Dec. 29 ..		4 22 31.15	+ 3.362	76 36 ...	...	.....	...
322*	45 Eridani.....	Jan. 30 ..		4 24 30	.....	90 21 23.7	...	— 8.12	...
323	1404 B.A.C.	Jan. 10 ..		4 24 44.21	+ 2.344	120 46 ...	...	.....	...
324	ρ Tauri	Jan. 12 ..		4 25 40.76	+ 3.390	75 27 ...	...	— 8.02	...
	.....	Feb. 1 ..		.....	.....	43.7	...	.....	...
	.....	Dec. 16 ..		.....	.....	43.9	...	.....	...
	.....	29 ..		.....	.....	42.9	...	.....	...
325*	1417 B.A.C.	Dec. 16 ..		4 27 16.27	+ 3.509	70 25 ...	...	.....	6.7
326	Aldebaran	Jan. 10 ..		4 27 ...	+ 3.434*	73 47 ...	2.7	— 7.69*	...
	.....	11 ..		.....	.....	.....	3.0	.....	...
	.....	12 ..		.....	.....	0.9	...	.....	...
	.....	25 ..		.....	.....	2.1	...	.....	...
	.....	Dec. 29 ..		39.77	.....	.....	...	.....	...
327	ν^6 Eridani	Jan. 10 ..		4 27 51.49	+ 2.359	120 4 ...	...	.....	...
328	89 Tauri	Jan. 12 ..		4 29 55.04	+ 3.420	74 16 ...	...	.....	6.7?
	.....	Dec. 27 ..		55.03	.....	.....	...	.....	6.3

No.	Star.	Date of Obs.	No of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
329	.....	Jan. 28	3	4 30 30.76	+21.075	3 55 ...	...	— 7.63	...
	.....S.P.	June 27	2	29.84	.....	.....	...	.....	...
	.....	28	3	28.47	.....	.....	...	.....	8.0
	.....	July 1	3	30.11	.....	.....	...	.....	8.3
	.....	2	3	30.15	.....	.....	...	.....	...
	.....	16	..	.....	.....	33.1	...	.....	...
330	σ^2 Tauri	Jan. 15	..	4 31 ..	+ 3.418	74 22 ...	15.5	— 7.59	...
	.....	Dec. 15	..	2.57	.....	.....	...	.....	...
	.....	16	..	2.48	.....	.....	...	.....	...
	.....	29	..	.....	.....	15.1	...	.....	...
331	53 Eridani	Jan. 10	..	4 31 35.17	+ 2.749	104 35 ...	...	— 7.55	...
	.....	25	..	35.33	.....	.....	...	.....	...
	.....	Dec. 15	..	.....	.....	21.0	...	.....	...
332	1446 B.A.C.	Dec. 29	..	4 32 42.51	+ 2.747	104 39 ...	...	.....	...
333	τ Tauri (2d)	Dec. 16	..	+ 33 35	.....	67 19 23.3	...	— 7.38	...
334	1450 B.A.C.	Jan. 12	..	4 34 7.40	+ 2.498	114 46 ...	...	.....	6.3?
	.....	Dec. 16	..	7.73	.....	.....	...	.....	...
335	+ Camelopardi	Jan. 14	..	4 36 1.64	+ 4.958	33 30 ...	...	— 7.19	...
	.....	25	..	1.68	.....	.....	...	.....	5.5
	.....	Dec. 27	..	1.33	.....	.....	...	.....	...
	.....	29	..	.....	.....	16.9	...	.....	...
336*	μ Eridani	Jan. 12	..	4 38 ..	+ 2.994	93 31 18.2	...	— 7.00	...
	.....	30	..	.....	.....	20.7	...	.....	...
	.....	31	..	.....	.....	21.1	...	.....	...
	.....	Dec. 16	..	18.27	.....	.....	...	.....	...
	.....	29	..	18.11	.....	.....	...	.....	...
337	58 Eridani	Jan. 10	..	4 41 8.24	+ 2.682	107 12 ...	...	.....	6.0
	.....	25	..	8.52	.....	.....	...	.....	...
	.....	Dec. 16	..	8.49	.....	.....	...	.....	6.0
338	.....S.P.	July 15	..	4 41 20	.....	4 14 42.1	...	— 6.75	6.7
339	π^1 Orionis	Jan. 28	..	4 42 1.49	+ 3.220	83 18 ...	...	.....	...

No.	Star.	Date of Obs.	No. of Wires	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
340	1490 B.A.C.	Jan. 12 ..		4 42 42.11	+ 4.002	53 36 ...	...	.....	7.3
341	π^2 Orionis	Feb. 14 ..		4 42 ...	+ 3.263	81 21 2.4	...	— 6.63	...
		Dec. 27 ..		46.01	.....	.....	...	.....	...
342	1496 B.A.C.	Dec. 29 5		4 44 7.69	+ 7.492	15 57 46.7	...	— 6.52	6.0
		.....S.P. July 2 ..		.....	.....	43.7	...	.....	...
		..... 29 ..		.....	.....	45.4	...	.....	...
343	1510 B.A.C.	Jan. 10 5		4 46 34.11	+ 7.452	16 9 ...	...	— 6.32	6.0
		..... 15 ..		.....	.....	15.1	...	.....	...
344	π^4 Orionis	Jan. 25 ..		4 46 58.28	+ 3.294	80 4 ...	...	— 6.28	...
		..... 28 ..		58.35	.....	.....	...	.....	...
		..... Feb. 1 ..		.....	.....	54.6	...	.....	...
345	1522 B.A.C.	Dec. 29 5		4 48 16.70	+ 6.013	23 23 ...	...	— 6.17	6.3
		.....S.P. July 15 ..		.....	.....	10.6	...	.....	7.0
		..... 26 ..		.....	.....	11.1	...	.....	...
346*	62 Eridani <i>b</i>	Jan. 30 ..		4 49 20	.....	95 24 10.9	...	— 6.09	...
		..... 31 ..		.....	.....	12.0	...	.....	...
347	ϵ Aurigæ	Dec. 27 ..		4 51 38.65	+ 4.289	46 24 ...	...	.....	...
348*	.....	Jan. 12 ..		4 52 2.62	+ 2.729	105 0 ...	...	.....	7.7
		..... 25 6		2.86	.....	.....	...	.....	...
349	1542 B.A.C.	Dec. 29 ..		4 52 23.92	+ 3.395	75 50 ...	...	.....	7.0
350	63 Eridani	Dec. 29 ..		4 53 0	.....	100 28 39.9	...	— 5.78	...
351	R Leporis	Jan. 14 ..		4 53 3.04	+ 2.728	105 1 ...	...	— 5.78	7.0?
		..... 15 ..		.....	.....	32 5	...	.....	...
		..... 28 ..		3.14	.....	.....	...	.....	...
352*	1549 B.A.C.	Feb. 14 ..		4 54 15	.....	16 14 54.8	...	— 5.68	...
		..... 16 ..		.....	.....	52.9	...	.....	...
353	1550 B.A.C. ....S.P.	July 26 ..		4 54 20	.....	13 43 10.2	...	— 5.67	...
		..... 29 ..		.....	.....	9.4	...	.....	...

No.	Star.	Date of Obs.	No. of W. lines.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	" "		
354	.....S.P.	June 25	3	4 55 24.15	+19.488	4 28 ...	...	.....	7.0
	.....	July 8	3	25.07	.....	.....	...	.....	6.7
	.....	15	3	24.69	.....	.....	...	.....	6.5
	.....	25	3	24.66	.....	.....	...	.....	7.0
	.....	26	3	24.33	.....	.....	...	.....	7.0
355	9 Aurigæ	Feb. 1	..	4 55 25	.....	38 35 58.1	...	— 5.58	...
	.....S.P.	July 2	..	.....	.....	55.9	...	.....	...
356*	11 Orionis	Jan. 12	..	4 56 ...	+ 3.422	74 48 ...	0.9	— 5.50	...
	.....	25	..	20.68	.....	.....	...	.....	...
	.....	28	..	20.65	.....	.....	...	.....	...
357*	1 Leporis	Dec. 29	..	4 56 40.45	+ 2.525	113 0 ...	...	.....	6.0
358	1565 B.A.C.	Dec. 27	..	4 58 50	.....	10 56 48.8	...	— 5.29	...
	.....S.P.	July 15	..	.....	.....	47.1	...	.....	...
359	104 Tauri <i>m</i>	Jan. 31	..	4 59 0	.....	71 33 10.1	...	— 5.28	..
360	ε Leporis	Dec. 29	..	4 59 20	.....	112 35 2.9	...	— 5.24	...
361	β Eridani	Dec. 27	..	5 0 46.39	+ 2.952	95 17 ...	...	.....	...
362*	λ Eridani	Jan. 30	..	5 2 15	.....	98 56 33.1	...	— 5.00	...
	.....	Feb. 12	..	.....	.....	30.6	...	.....	...
	.....	16	..	.....	.....	32.9	...	.....	...
363	12 Aurigæ	Jan. 12	..	5 5 47.65	+ 4.429	43 45 ...	...	— 4.70	7.3
	.....	25	..	47.73	.....	.....	...	.....	...
	.....	Dec. 29	..	.....	.....	12.4	...	.....	...
364	Capella	Jan. 15	..	5 6 0	.....	44 9 13.0	...	— 4.24*	...
365	16 Aurigæ	Jan. 14	..	5 8 43.88	+ 3.926	56 47 ...	...	.....	...
366	λ Aurigæ	Dec. 27	..	5 9 0	.....	50 2 2.2	...	— 4.43	...
367*	τ Orionis	Jan. 12	..	5 10 36.96	+ 2.911	97 0 ...	...	— 4.29	...
	.....	Feb. 16	..	.....	.....	11.1	...	.....	...
368*	109 Tauri <i>n</i>	Jan. 10	..	5 10 40	.....	68 3 22.8	...	— 4.29	...
	.....	Feb. 1	..	.....	.....	24.3	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Precession in R.A.		Mean S.P.D. 1856.		Precession in S.P.D.	Mag.
				h.	m.	s.	s.		D.	R.		
369	1661 B.A.C.	Feb. 14 ..		5	14	30	.....		86	34	24.0	... — 3.96 ...
370	1670 B.A.C.	Feb. 12 ..		5	15	50	.....		114	54	56.6	... — 3.84 ...
371	111 Tauri.....	Dec. 27 ..		5	16	1.39	+ 3.480		72	45	15.4	... — 3.82 ...
372	944 Gr.	Jan. 15 3		5	16	18.74	+18.411		4	54	...	... ..
	.....S.P.	July 14 3				18.31	.....		.....	...	.....	5.7
373	1678 B.A.C.	Dec. 29 ..		5	16	30	.....		91	0	19.5	... — 3.78 ...
374*	29 Orionis <i>c</i>	Feb. 16 ..		5	17	0	.....		97	56	37.3	... — 3.74 ...
375	β Tauri.....	Jan. 12 ..		5	17	...	+3.788*		61	31	...	4.4 — 3.52*
	.....	Feb. 14 ..				11.61	.....		.....	...	.....	...
376	γ Orionis Jan. 30 ..			5	17	25	.....		83	47	...	5.3 — 3.70 ...
377	1708 B.A.C.	Dec. 27 ..		5	20	22.45	+ 2.791		102	2	...	... ..
378	1713 B.A.C.	Feb. 12 ..		5	21	37.64	+ 2.408		116	43	...	... ..
	.....	14 ..				37.67	.....		.....	...	.....	...
379	.....	Jan. 12 3		5	22	36.11	+31.037		2	42	...	... — 3.26 8.0
	.....	Dec. 13 2				35.03	.....		.....	...	.....	...
	.....	29 4				34.86	.....		.....	...	.....	8.3
	.....S.P.	July 26 ..				.....	.....		5.0	...	.....	8.3
	.....	Aug. 1 ..				.....	.....		4.6	...	.....	8.0
380	δ Orionis Jan. 10 ..			5	24	40	.....		90	24	33.1	... — 3.04* ...
	.....	14 ..				.....	.....		34.8	...	.....	...
	.....	31 ..				.....	.....		35.6	...	.....	...
381*	ν Orionis Feb. 14 ..			5	25	0	.....		97	24	41.4	... — 3.05 ...
	.....	16 ..				.....	.....		40.5	...	.....	...
382	α Leporis Dec. 29 ..			5	26	0	.....		107	55	42.5	... — 2.93* ...
383	22 Camelopardi... Jan. 18 ..			5	26	56.23	+ 5.053		33	43	...	... — 2.88 ...
	.....	Feb. 12 ..				56.15	.....		.....	...	.....	7.3
	.....S.P.	July 28 ..				.....	.....		46.6	...	.....	...
	.....	29 ..				.....	.....		44.7	...	.....	7.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
384	21 Camelopardi...	Feb. 12 ..		5 27 10	.....	28 8 34.2	...	— 2.87	...
	.....S.P.	July 30 ..		.....	.....	34.1	...	.....	7.0
	.....	Aug. 6 ..		.....	.....	35.6	...	.....	7.3
385	θ^1 Orionis (1st) ..	Jan. 25 ..		5 28 11.56	+ 2.944	95 29 ...	...	.....	...
386	θ^1 Orionis (3d) ...	Jan. 14 ..		5 28 12.06	+ 2.944	95 29 ...	...	.....	...
387	ζ Tauri	Jan. 10 ..		5 29 2.25	+ 3.582	68 56 ...	...	— 2.70	...
	.....	Feb. 1 ..		.....	.....	.....	57.7	.....	...
	.....	14 ..		2.39	.....	57.0	...	.....	...
388	ζ Orionis	Jan. 12 ..		5 33 30	.....	92 1 19.6	...	— 2.31	...
	.....	14 ..		.....	.....	20.0	...	.....	...
	.....	15 ..		.....	.....	21.3	...	.....	...
	.....	Feb. 9 ..		.....	.....	19.4	...	.....	...
389	1796 B.A.C.	Jan. 12 ..		5 34 0.60	+ 3.527	71 5 ...	...	.....	7.5
	.....	Feb. 12 ..		0.50	.....	.....	...	.....	7.5
390	o Aurigæ	Feb. 12 ..		5 34 45	.....	40 14 32.3	...	— 2.20	...
	.....S.P.	July 29 ..		.....	.....	33.6	...	.....	6.5
391	1808 B.A.C.	Feb. 14 ..		5 36 17.47	+ 3.428	75 0 ...	...	.....	...
392	γ Leporis	Feb. 16 ..		5 38 30	.....	112 29 51.1	...	— 1.88	...
393	κ Orionis	Jan. 30 ..		5 40 55	.....	99 43 27.5	...	— 1.67	...
394	1851 B.A.C.	Feb. 12 5		5 42 6.87	+ 3.302	80 11 ...	...	.....	6.3
395	136 Tauri	Jan. 18 ..		5 44 16.61	+ 3.768	62 25 ...	...	— 1.38	...
	.....	Feb. 15 ..		.....	.....	34.0	...	.....	...
396	1874 B.A.C.	Feb. 9 ..		5 45 50	.....	23 0 28.9	...	— 1.24	...
397	χ^1 Orionis	Jan. 10 ..		5 45 50	.....	69 45 ...	17.7	— 1.24	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.		Precession in R.A.	Mean S.P.D. 1856.		Precession in S.P.D.	Mag.	
				h. m. s.	s.		D.	R.			
398	α Orionis	Jan. 12 ..	12	5	47	22.70	+3.247*	82 37 23.1	...	1.10*	...
	.....	14 5	14			22.71	.....	.....	...	.....	...
	.....	18 ..	18			22.58	.....	.....	...	.....	...
	.....	28 ..	28			22.61	.....	.....	...	.....	...
	.....	Feb. 12 ..	12			22.69	.....	24.5	...	.....	...
399	1004 Gr.	Jan. 10 3	10	5	48	28.38	+26.658	3 14 ...	...	.....	6.3
	.....	14 3	14			28.91	.....	.....	...	.....	...
	.....	25 3	25			29.18	.....	.....	...	.....	...
	.....S.P.	July 16 3	16			28.71	.....	.....	...	.....	6.3
400	η Leporis.....	Feb. 1 ..	1	5	49	50	.....	104 11 52.1	...	— 0.89	...
401	140 Tauri	Feb. 9 ..	9	5	51	44.53	+ 3.636	67 7 ...	...	.....	7.7
402	χ^3 Orionis.....	Jan. 18 ..	18	5	54	56.09	+ 3.550	70 18 ...	...	— 0.44	...
	.....	Feb. 16 ..	16			.....	.....	39.0	.....	.....	...
403*	66 Orionis.....	Jan. 28 ..	28	5	57	21.81	+ 3.169	85 50 ...	...	.....	...
	.....	Feb. 12 ..	12			21.93	.....	.....	...	.....	6.7
404	ν Orionis.....	Jan. 10 ..	10	5	59	...	+ 3.424	75 13 ...	7.5	— 0.06	...
	.....	18 ..	18			21.05	.....	.....	...	.....	...
	.....	30 ..	30			.....	.....	4.5	.....	.....	...
	.....	Feb. 9 ..	9			21.07	.....	6.5	...	.....	...
	.....	29 ..	29			.....	.....	6.2	...	.....	...
405	κ Aurigæ	Jan. 18 ..	18	6	6	12.12	+ 3.829	60 27 ...	...	.....	...
	.....	Feb. 9 ..	9			12.29	.....	.....	...	.....	...
406	71 Orionis.....	Jan. 31 ..	31	6	6	20	.....	70 47 ...	54.9	+ 0.56	...
407*	2 Lyncis	Dec. 13 ..	13	6	6	55.20	+ 5.301	30 56 ...	...	+ 0.60	...
	.....S.P.	Aug. 2 ..	2			.....	.....	38.8	...	.....	...
	.....	4 ..	4			.....	.....	37.9	...	.....	...
408	43 Aurigæ .....S.P.	Aug. 6 ..	6	6	7	30	.....	43 35 22.9	...	+ 0.66	7.0
409	5 Monocerotis	Feb. 1 ..	1	6	7	50	.....	96 14 3.7	...	+ 0.69	...
410	75 Orionis <i>l</i>	Jan. 12 ..	12	6	9	10.26	+ 3.307	80 1 ...	...	.....	5.7
	.....	Feb. 12 ..	12			10.38	.....	.....	...	.....	5.7

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
411	μ Geminorum	Jan. 10 ..	6 14 ..	...	+3.632*	67 24 ..	61.2	+ 1.38*	...
	.....	Feb. 9 5	14.99	.....	.....	.....	...	.....	...
	.....	12 ..	14.90	.....	.....	.....	...	.....	...
	.....	14 5	14.95	.....	.....	.....	...	.....	...
	.....	15 ..	.....	.....	.....	59.3	...	.....	...
	.....	16 ..	.....	.....	.....	58.9	...	.....	...
412	β Can. Maj.	March 8 ..	6 16 20	.....	.....	107 53 17.0	...	+ 1.43	...
	.....	11 ..	.....	.....	.....	15.3	...	.....	...
413	6 Lyncis.....S.P.	Aug. 6 ..	6 17 55	.....	.....	31 44 16.4	...	+ 1.57	6.3
414	ν Geminorum	Feb. 1 ..	6 20 25	.....	.....	69 42 4.5	...	+ 1.78	...
	.....	16 ..	.....	.....	.....	1.9	...	.....	...
	.....	29 ..	.....	.....	.....	1.9	...	.....	...
415	2095 B.A.C.....S.P.	July 14 ..	6 21 40	.....	.....	10 17 32.1	...	+ 1.89	...
416	7 Lyncis	Feb. 29 ..	6 22 33.59	+ 5.005	.....	34 33 ..	...	.....	7.0
417	41 Camelopardi ..	Feb. 29 5	6 27 12.03	+ 5.573	.....	27 57 ..	...	+ 2.38	7.3
	.....S.P.	Aug. 6 ..	.....	.....	.....	35.5	...	.....	6.5
418	51 Aurigæ	Feb. 29 ..	6 28 40	.....	.....	50 29 12.0	...	+ 2.50	...
	.....	March 11 ..	.....	.....	.....	11.2	...	.....	...
419	ξ^2 Can. Maj.	Jan. 10 ..	6 29 0	.....	.....	112 51 12.1	...	+ 2.54	...
	.....	12 ..	.....	.....	.....	14.3	...	.....	...
420	γ Geminorum	Jan. 31 ..	6 29 ..	+ 3.465	.....	73 28 ..	56.1	+ 2.57	...
	.....	Feb. 12 ..	23.59	.....	.....	.....	...	.....	...
	.....	15 ..	.....	.....	.....	56.4	...	.....	...
421	51 Cephei.....S.P.	July 18 4	6 31 38.15	+30.630*	.....	2 45 ..	...	.....	...
422	12 Lyncis.....	Feb. 12 ..	6 33 ..	+ 5.325	.....	30 25 8.6	...	+ 2.92	...
	.....	29 ..	30.69	.....	.....	.....	...	.....	5.7
	.....S.P.	July 14 ..	.....	.....	.....	9.7	...	.....	...
423	13 Lyncis.....S.P.	Aug. 4 ..	6 34 30	.....	.....	32 41 14.7	...	+ 3.01	...
424	ϵ Geminorum	Feb. 16 ..	6 35 5	.....	.....	64 43 49.1	...	+ 3.06	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
425°	43 Camelopardi...	March 8	..	6 38 10	.....	20 57 7.4	...	+ 3.33	...
	.....	11	..	.....	.....	8.5	...	.....	...
426	Sirius.....	Jan. 10	..	6 38 ..	+2.646*	106 31 15.5	...	+ 4.61°	...
	.....	12	..	.....	.....	16.4	...	.....	...
	.....	30	..	.....	.....	18.7	...	.....	...
	.....	31	..	.....	.....	19.8	...	.....	...
	.....	Feb. 15	..	.....	.....	18.2	...	.....	...
	.....	March 8	..	48.08	.....	.....	...	.....	...
427	58 Aurigæ.....	Feb. 29	..	6 40 35	.....	48 3 12.8	...	+ 3.53	...
	.....	March 13	..	.....	.....	13.7	...	.....	...
428	15 Lynceis.....	March 8	5	6 44 47.98	+ 5.221	31 23 ..	...	+ 3.89	...
	.....S.P.	Aug. 4	..	.....	.....	42.5	...	.....	...
429°	38 Geminorum c.	Feb. 12	..	6 46 30	.....	76 38 35.4	...	+ 4.04	...
	.....	16	..	.....	.....	35.7	...	.....	...
	.....	29	..	.....	.....	32.8	...	.....	...
430	19 Can. Maj.....	Jan. 31	..	6 49 ..	+ 2.597	109 57 22.8	...	+ 4.29	...
	.....	Feb. 16	..	22.89	.....	.....	...	.....	...
	.....	29	..	22.85	.....	.....	...	.....	5.5
	.....	March 8	..	.....	.....	22.6	...	.....	...
431	39 Geminorum ...	March 13	..	6 49 55	.....	63 44 0.1	...	+ 4.33	...
432	ε Can. Maj.	Jan. 30	..	6 52 ..	+2.358*	118 46 46.3	...	+ 4.61°	...
	.....	March 8	..	58.18	.....	.....	...	.....	...
	.....	11	..	.....	.....	42.1	...	.....	...
433	2304 B.A.C.	Jan. 25	..	6 55 25.46	+ 3.285	80 39 ..	...	+ 4.80	...
	.....	Feb. 29	..	25.35	.....	20.6	...	.....	6.7
434	ζ Geminorum	March 14	..	6 55 35	.....	69 13 20.7	...	+ 4.82	...
435°	22 Can. Maj.....	March 8	..	6 55 59.00	+ 2.390	117 44 ..	...	.....	...
	.....	13	..	59.02	.....	.....	...	.....	...
436	γ Can. Maj.....	March 8	..	6 57 15	.....	105 25 26.0	...	+ 4.96	...
437	2317 B.A.C.....S.P.	Sept. 4	3	6 57 51.16	+11.741	8 30 ..	...	.....	6.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h.	m.	s.	D.	R.		
438	τ Geminorum	March 11	..	7	2	0	59 31 20.5	...	+ 5.36	...
439	δ Can. Maj.	March 13	..	7	2	30	116 10 0.8	...	+ 5.40	...
	.....	14	..	.....	.....	.....	2.5	...	.....	...
440	2347 B.A.C.	March 8	..	7	3	3.40	+ 3.430	74 26 ...	.....	7.7
441	20 Monocerotis...	Feb. 29	..	7	3	4.53	+ 2.981	94 1 ...	.....	5.5
442	18 Lyncis	March 8	..	7	3	...	+ 5.290	30 6 43.2	...	+ 5.47
	..... S.P.	Sept. 4	..	.....	19.23	.....	.....	...	.....	5.7
443	1119 Gr.	S.P. July 29	3	7	4	57.86	+ 78.683*	0 58 ...	.....	7.3
	.....	Aug. 1	3	.....	58.14	.....	.....	...	.....	7.3
	.....	4	3	.....	58.40	.....	.....	...	.....	7.0
	.....	5	3	.....	57.85	.....	.....	...	.....	7.0
	.....	13	3	.....	58.03	.....	.....	...	.....	...
	.....	22	3	.....	58.23	.....	.....	...	.....	...
	.....	Sept. 2	3	.....	58.03	.....	.....	...	.....	7.0
444*	51 Geminorum ...	Jan. 31	..	7	5	5	.....	73 35 ...	59.6 +	5.62
445	2371 B.A.C.	March 11	..	7	6	30.96	+ 2.315	120 35 ...	.....	...
446*	45 Camelopardi S.P.	Aug. 5	..	7	6	40	.....	30 37 20.1	...	+ 5.75
447	14038 Lalande ...	Feb. 16	..	7	6	56.98	+ 3.597	67 48 ...	.....	7.3
	.....	29	..	.....	56.98	.....	.....	...	.....	7.5
448	2383 B.A.C.	March 8	..	7	8	8.01	+ 3.722	63 3 ...	.....	7.0
	.....	13	..	.....	8.18	.....	.....	...	.....	6.5
449	2377 B.A.C.	S.P. Sept. 4	3	7	8	14.26	+ 11.306	8 49 ...	.....	6.5
450	47 Camelopardi...	March 11	..	7	9	...	+ 5.296	29 50 14.0	...	+ 6.00
	..... S.P.	Aug. 13	..	.....	.....	.....	17.2	...	.....	...
	.....	Sept. 5	..	.....	39.06	.....	.....	...	.....	6.3
451	2399 B.A.C.	March 11	..	7	9	46.49	+ 2.322	120 26 ...	.....	...
452*	λ Geminorum	March 13	..	7	9	50	.....	73 12 12.2	...	+ 6.02

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Precession in R.A.		Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h.	m.	s.	s.		D.	R.		
453	δ Geminorum	Feb. 16 ..		7	11	31.10	+3.592*		67 45 24.8	...	+ 6.18*	...
	.....	March 14 ..		.....	.....	.....	.....		22.5	...	.....	...
454	2420 B.A.C.	March 13 ..		7	12	58.95	+ 2.323		120 32 ...	...	.....	...
455	2443 B.A.C.	March 11 ..		7	16	40.62	+ 2.273		122 19 ...	...	.....	...
456	ϵ Geminorum.....	Feb. 16 ..		7	16	46.80	+ 3.746		61 55 ...	...	+ 6.59	...
	.....	March 8 ..		.....	.....	.....	.....		9.5	...	.....	...
	.....	11 ..		.....	.....	.....	.....		9.9	...	.....	...
457	2453 B.A.C.	March 13 ..		7	18	3.76	+ 2.339		120 10 ...	...	.....	...
458	22 Lyncis	March 13 ..		7	19	0	.....		40 12 7.4	...	+ 6.78	...
459	2470 B.A.C.	Feb. 16 ..		7	21	5.57	+ 2.822		101 16 ...	...	+ 6.95	7.0
	.....	29 ..		.....	.....	5.55	.....		.....	...	.....	6.3?
	.....	March 14 ..		.....	.....	.....	.....		4.7	...	.....	5.7?
460	S Can. Min.	Feb. 14 ..		7	24	54.07	+ 3.261		81 22 41.5	...	+ 7.26	8.0
	.....	March 8 5		.....	.....	54.43	.....		37.4	...	.....	8.0
	.....	11 5		.....	.....	54.02	.....		.....	...	.....	9.3
461	ν Geminorum.....	Feb. 16 ..		7	27	0	.....		62 47 ...	14.9	+ 7.44	...
	.....	March 11 ..		.....	.....	.....	.....		15.4	...	.....	...
462	23 Lyncis	March 8 5		7	28	53.98	+ 5.008		32 35 ...	...	+ 7.58	...
	.....	11 ..		.....	.....	53.82	.....		.....	...	.....	6.5
	.....	24 ..		.....	.....	.....	.....		38.4	...	.....	...
	.....	29 ..		.....	.....	.....	.....		40.8	...	.....	...
463	70 Geminorum ...	Feb. 16 ..		7	29	5.48	+ 3.950		54 38 ...	...	.....	6.0?
	.....	March 13 ..		.....	.....	5.48	.....		.....	...	.....	...
464	.....	Feb. 9 3		7	29	8.41	+25.001		3 14 ...	...	.....	...
	..... S.P.	July 30 3		.....	.....	8.05	.....		.....	...	.....	8.0
	.....	Aug. 9 5		.....	.....	8.50	.....		.....	...	.....	8.7
	.....	29 3		.....	.....	7.31	.....		.....	...	.....	...
	.....	Sept. 3 3		.....	.....	8.43	.....		.....	...	.....	8.5
	.....	5 3		.....	.....	8.08	.....		.....	...	.....	8.5
465	Procyon.....	March 24 ..		7	31	45.74	+3.145*		84 25 ...	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
466	2521 B.A.C.....S.P.	Aug. 29	3	7 32 15.51	+10.515	9 23 ...	...	.....	...
467	S Geminorum.....	Feb. 16	..	7 34 23.78	+ 3.612	66 12 ...	...	+ 8.03	9.0?
	.....	March 8	5	23.92	.....	.....	...	.....	9.3
	.....	11	5	23.88	.....	.....	...	.....	9.5
	.....	27	..	.....	.....	51.5	...	.....	9.3
468	Pollux	Jan. 12	..	7 36 ...	+3.682*	61 37 45.3	...	+ 8.26*	...
	.....	Feb. 29	..	.....	.....	46.7	...	.....	...
	.....	March 11	..	.....	.....	46.0	...	.....	...
	.....	24	..	30.15	.....	.....	...	.....	...
469	.....S.P.	July 17	3	7 37 30.83	+20.926	3 54 ..	...	.....	7.3
470	T Geminorum ...	Feb. 14	..	7 40 40	.....	65 54 40.7	...	+ 8.53	8.7
471	2590 B.A.C.	March 27	..	7 41 55	.....	10 8 16.6	...	+ 8.63	...
472	6 Puppis	Feb. 15	..	7 43 10.96	+ 2.706	106 52 ...	...	.....	...
	.....	March 8	..	10.98	.....	.....	...	.....	...
	.....	24	..	10.74	.....	.....	...	.....	...
473*	ξ Argus	Jan. 31	..	7 43 15	.....	114 30 4.1	...	+ 8.73	...
	.....	March 8	..	.....	.....	2.0	...	.....	...
	.....	13	..	.....	.....	1.9	...	.....	...
	.....	14	..	.....	.....	2.7	...	.....	...
474	φ Geminorum ...	Feb. 16	..	7 44 40	.....	62 51 ...	52.9	+ 8.85	...
	.....	March 11	..	.....	.....	.....	54.1	.....	...
	.....	29	..	.....	.....	53.6	...	.....	...
475	9 Puppis	March 24	..	7 45 6.00	+ 2.784	103 31 ...	...	.....	...
476	.....	Feb. 14	3	7 50 56.24	+15.230	5 34 ...	...	.....	7.7
	.....	15	3	55.93	.....	.....	...	.....	...
	.....	March 11	4	56.10	.....	.....	...	.....	8.5
	.....S.P.	Aug. 2	5	56.55	.....	.....	...	.....	8.3
	.....	Sept. 4	3	57.35	.....	.....	...	.....	8.3
477	2655 B.A.C.	March 11	..	7 51 55.81	+ 2.391	119 57 ...	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
478	28 Monocerotis...	March 8 ..		7 53 53.94	+ 3.052	90 59 ...	...	+ 9.56	6.0
	.....	24 ..		53.86	.....	.....	...	.....	...
	.....	29 ..		.....	.....	45.2	...	.....	...
479	6 Cancri.....	March 13 ..		7 54 40	.....	61 48 18.1	...	+ 9.62	...
	.....	24 ..		.....	.....	16.6	...	.....	...
480	2673 B.A.C.	March 8 ..		7 54 45	.....	87 16 ...	24.8	+ 9.63	...
481	.....	Feb. 14 ..		7 55 20	.....	4 18 39.8	...	+ 9.67	8.5
	.....	March 27 ..		.....	.....	40.0	...	.....	8.5
482	2703 B.A.C.	Feb. 9 ..		7 58 4.06	+ 3.562	67 7 ...	...	+ 9.88	...
	.....	15 ..		4.19	.....	.....	...	.....	...
	.....	March 14 ..		.....	.....	59.2	...	.....	7.0
483	15 Argus	Feb. 9 ..		8 1 24.60	+ 2.555*	113 53 ...	...	+ 10.07*	...
	.....	15 ..		24.77	.....	.....	...	.....	...
	.....	March 29 ..		.....	.....	28.7	...	.....	...
	.....	April 1 ..		.....	.....	29.2	...	.....	...
484	ψ^2 Cancri	March 11 ..		8 1 45	.....	64 3 ...	36.5	+ 10.16	...
485	2734 B.A.C.	March 8 ..		8 2 36.68	+ 3.816	57 6 ...	...	.....	6.7
	.....	11 ..		36.64	.....	.....	...	.....	7.0
	.....	24 ..		36.61	.....	.....	...	.....	...
486	18 Puppis	March 27 ..		8 3 59.34	+ 2.799	103 23 ...	...	.....	6.0
487	ζ Cancri (1st) ...	March 8 ..		8 4 0	.....	71 55 ...	17.2	+ 10.33	...
	.....	13 ..		.....	.....	.....	18.9	.....	...
488	.....	March 27 ..		8 5 10	.....	3 43 37.2	...	+ 10.42	8.3
489	R Cancri	Feb. 9 ..		8 8 37.44	+ 3.315	77 50 ...	...	+ 10.67	6.0?
	.....	14 ..		37.31	.....	4.0	...	.....	6.3
	.....	March 24 ..		.....	.....	4.4	...	.....	6.5
	.....	31 ..		.....	.....	4.7	...	.....	6.7
490*	β Cancri	March 24 ..		8 8 42.21	+ 3.264	80 22 ...	...	.....	...
	.....	27 ..		42.18	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
491	χ Cancri	March 11 ..		8 11 18.64	+ 3.661	62 19 ...	...	.....	5.7
492	2788 B.A.C.	March 24 ..		8 11 56.88	+ 3.506	68 48 ...	...	.....	...
	.....	27 ..		56.70	.....	.....	...	.....	6.3
493	1418 Gr.	March 27 ..		8 12 ...	+ 17.435	4 27 6.4	...	+ 11.00	7.3
	.....	April 1 ..		.....	.....	3.5	...	.....	7.5
	.....S.P.	Aug. 6 5		58.79	.....	.....	...	.....	7.5
	.....	12 3		59.33	.....	.....	...	.....	7.0
	.....	14 3		59.56	.....	.....	...	.....	6.7
494	.....	March 13 ..		8 15 5	.....	4 18 34.4	...	+ 11.14	...
495	2810 B.A.C.	March 11 ..		8 16 33.44	+ 3.423	72 21 ...	...	.....	8.0
496	ϕ^1 Cancri	Feb. 9 ..		8 17 41.79	+ 3.667	61 38 ...	...	+ 11.34	...
	.....	March 11 ..		.....	.....	7.8	...	.....	...
	.....	14 ..		41.87	.....	.....	...	.....	6.0
	.....	April 4 ..		.....	.....	6.2	...	.....	...
497	σ Urs. Maj.	Feb. 9 ..		8 18 ...	+ 5.075	28 48 19.9	...	+ 11.38	...
	.....S.P.	Sept. 5 ..		15.87	.....	19.1	...	.....	{ 4.3 ...
498	27 Cancri	March 11 ..		8 18 46.05	+ 3.329	76 52 ...	...	.....	6.5
499	2827 B.A.C.	March 8 5		8 18 50.75	+ 2.592	113 35 ...	...	.....	...
500*	2828 B.A.C.	March 13 ..		8 18 53.91	+ 2.592	113 35 ...	...	.....	10.0
501*	29 Cancri	March 24 ..		8 20 34.84	+ 3.359	75 18 ...	...	+ 11.55	...
	.....	29 ..		.....	.....	54.1	...	.....	...
	.....	31 ..		.....	.....	56.4	...	.....	6.3
	.....	April 1 ..		.....	.....	55.4	...	.....	...
502	ν^3 Cancri	Feb. 15 ..		8 22 59.45	+ 3.568	65 26 ...	...	.....	...
	.....	March 13 ..		59.39	.....	.....	...	.....	5.7
503	η Cancri	Feb. 14 ..		8 24 20	.....	69 4 18.3	...	+ 11.82	6.0
	.....	March 13 ..		.....	.....	19.5	...	.....	...
	.....	27 ..		.....	.....	20.6	...	.....	6.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Precession in R.A.		Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h.	m.	s.	s.		D.	R.		
504	.....	Feb. 16	3	8	25	20.61	+14.079	5	35	...	.....	7.3
	.....	March 8	3			20.76	.....	.....	.....	.....	.....	7.5
505	2883 B.A.C.	March 11	..	8	27	...	+ 2.427	121	2	33.6	... + 12.02	...
	.....	14	..			14.04	.....		29.8	...	.....	...
	.....	29	..			14.20	.....		36.9	...	.....	...
506	2898 B.A.C.	March 13	..	8	29	22.42	+ 2.545	116	20	...	... + 12.16	...
	.....	April 4	..			.....	.....		55.4		.....	...
507	.....	March 27	..	8	34	0	.....	3	53	22.6	... + 12.48	8.0
	.....	31	..			.....	.....		19.5	...	.....	7.7
508	S Cancri	March 8	..	8	35	42.37	+ 3.441	70	27	...	.....	8.7
	.....	13	..			42.32	.....		.....	...	.....	8.3
509	δ Cancri	March 7	..	8	36	30	.....	71	19	7.0	... + 12.66	...
	.....	8	..			.....	.....			9.7	.....	...
	.....	13	..			.....	.....			11.1	.....	...
	.....	24	..			.....	.....		9.1	...	.....	...
510	ε Hydre	March 7	..	8	39	8.92	+ 3.185*	83	3	...	... + 12.87*	...
	.....	8	..			8.85	.....			...	.....	...
	.....	11	..			.....	.....			21.1	.....	...
	.....	14	..			.....	.....		20.6	...	.....	...
	.....	29	..			.....	.....		19.3	...	.....	...
511	5 Urs. Maj. <i>b</i>	March 27	..	8	41	28.35	+ 5.029	27	30	...	... + 12.99	5.7
	.....	29	..			28.47	.....			...	.....	6.0
	.....	April 1	..			.....	.....		12.1	...	.....	...
	.....	4	..			.....	.....		12.4	...	.....	...
512	ρ ¹ Cancri	Feb. 15	..	8	43	48.81	+ 3.627	61	12	...	... + 13.14	6.5
	.....	March 8	..			48.71	.....		10.2	...	.....	6.5
513	ρ ² Cancri	March 7	..	8	44	0.89	+ 3.628	61	7	...	.....	6.5
	.....	31	..			0.73	.....		.....	...	.....	6.0
514	.....	March 7	..	8	46	...	+ 3.136	86	19	59.0	... + 13.35	8.3
	.....	14	5			51.24	.....		61.7	...	.....	8.0
	.....	27	..			51.36	.....		.....	...	.....	8.5
	.....	31	..			.....	.....		64.5	...	.....	8.3

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
515	3025 B.A.C..... S.P.	Oct. 17 ..		8 47 5	.....	43 49 17.3	...	+ 13.36	...
516	3031 B.A.C.....	March 11 ..		8 47 40.22	+ 3.333	75 16 ..	...	.....	8.0
	.....	31 ..		40.28	.....	.....	...	.....	8.3
517	T Cancri	Feb. 14 ..		8 48 26.55	+ 3.440	69 36 7.1	...	+ 13.45	7.5
	.....	15 ..		26.24	.....	.....	...	.....	7.7
	.....	March 7 ..		26.57	.....	.....	...	.....	8.0
	.....								8.3
518	ι Urs. Maj.	March 29 ..		8 49 19.85	+ 4.146*	41 24 ..	...	.....	...
	.....	April 4 ..		19.88	.....	.....	...	.....	...
519	10 Urs. Maj.	March 8 ..		8 51 16.64	+ 3.966	47 38 59.1	...	+ 13.63	4.0
	.....	14 ..		16.54	.....	.....	...	.....	...
	.....	29 ..		.....	.....	59.7	...	.....	...
	.....	April 1 ..		.....	.....	58.8	...	.....	...
520*	κ Urs. Maj.	March 27 ..		8 53 46.71	+ 4.140	42 16 ..	...	+ 13.79	...
	.....	31 ..		46.48	.....	.....	...	.....	...
	.....	April 4 ..		.....	.....	37.5	...	.....	...
521	σ ² Urs. Maj.	March 29 ..		8 57 40	.....	22 17 8.3	...	+ 14.04	...
	.....	31 ..		.....	.....	7.5	...	.....	...
	..... S.P.	Sept. 30 ..		.....	.....	7.4	...	.....	...
522*	τ Urs. Maj.	March 8 ..		8 59 0.21	+ 5.027	25 54 ..	...	+ 14.12	...
	.....	27 5		0.17	.....	.....	...	.....	...
	.....	29 ..		0.09	.....	.....	...	.....	4.7
	.....	April 1 ..		.....	.....	15.9	...	.....	...
523	75 Cancri	March 14 ..		9 0 18.60	+ 3.558	62 47 ..	...	.....	6.3
	.....	April 4 ..		18.59	.....	.....	...	.....	6.3
524	ξ Cancri.....	March 8 ..		9 1 5	.....	67 22 ..	31.2	+ 14.25	...
525	.....	March 7 3		9 1 13.64	+24.453*	2 31 ..	...	.....	8.5
	.....	13 3		13.24	.....	.....	...	.....	8.0
	.....	14 3		13.56	.....	.....	...	.....	8.3
	.....	27 3		13.18	.....	.....	...	.....	8.0
	.....	31 3		13.26	.....	.....	...	.....	9.0?
	..... S.P.	Sept. 30 2		13.42	.....	.....	...	.....	8.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	" "	" "	" "	
526*	16 Urs. Maj. <i>c</i> ...	March 13 ..		9 2 55	.....	27 59 14.7	...	+ 14.36	...
	.....S.P.	Sept. 2 ..		.....	.....	15.3	...	.....	6.0
	.....	16 ..		.....	.....	15.2	...	.....	...
527	3127 B.A.C.	March 31 ..		9 3 26.40	+ 2.633	115 13 ..	...	.....	7.7?
528*	18 Urs. Maj. <i>c</i> ...	Feb. 16 ..		9 5 50	.....	35 23 13.4	...	+ 14.54	...
	.....	March 11 ..		.....	.....	13.6	...	.....	...
	.....	April 4 ..		.....	.....	12.3	...	.....	...
	.....S.P.	Sept. 30 ..		.....	.....	13.5	...	.....	...
529	θ Hydæ	Feb. 15 ..		9 6 52.17	+ 3.119	87 4 ..	...	+ 14.60	...
	.....	16 ..		52.26	.....	.....	.....	.....	...
	.....	March 14 ..		.....	.....	.....	47.8	.....	...
	.....	27 ..		.....	.....	.....	49.6	.....	...
530	20 Urs. Maj.	March 31 ..		9 9 ..	+ 4.665	29 36 56.3	...	+ 14.75	7.3
	.....	April 1 ..		26.11	.....	.....	...	.....	7.0
531	.....	March 29 3		9 10 12.28	+26.093	2 15 ..	...	.....	8.3
	.....	April 4 3		11.88	.....	.....	...	.....	8.3
532	3169 B.A.C.	Feb. 15 5		9 10 42.65	+ 4.219	38 8 ..	...	+ 14.83	...
	.....	March 11 ..		42.61	.....	.....	...	.....	6.5
	.....S.P.	Sept. 2 ..		.....	.....	8.3	...	.....	7.5
	.....	22 ..		.....	.....	6.5	...	.....	...
533	α Lyncis	March 7 ..		9 12 16.46	+ 3.698	55 0 ..	...	+ 14.92	...
	.....	13 ..		.....	.....	2.5	...	.....	...
	.....	April 1 ..		.....	.....	2.5	...	.....	...
534	3183 B.A.C.	March 13 ..		9 12 47.83	+ 3.502	64 13 ..	...	.....	7.3
	.....	14 ..		47.74	.....	.....	...	.....	7.3
535	3199 B.A.C.	Feb. 15 3		9 16 11.66	+ 9.273	8 2 ..	...	+ 15.15	...
	.....	March 8 ..		12.10	.....	.....	...	.....	4.7
	.....	27 5		11.51	.....	.....	...	.....	...
	.....	April 19 ..		.....	.....	38.8	...	.....	...
	.....S.P.	Sept. 16 ..		.....	.....	36.2	...	.....	...
536	3206 B.A.C.	April 1 ..		9 16 38.72	+ 3.397	96 36 ..	...	.....	6.7

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
							D.	R.		
				h. m. s.	s.	° ' "	"	"		
537	23 Urs. Maj. <i>h</i> ...	March 13 ..	..	9 20 7.93	+ 4.809	26 18 ...	...	+ 15.37	...	
	.....	14 ..	..	7.77	.....	.....	...	.....	...
	.....	29 ..	..	.....	.....	.....	41.4	.....	...
	..... S.P. Sept.	22 ..	..	.....	.....	45.1	...	.....	...
538	α Hydræ.....	March 7 ..	..	9 20 30.69	+2.948*	98 2 ...	...	.....	...
	.....	11 ..	..	30.68	.....	.....	...	.....	...
539	22 Urs. Maj.	March 13 ..	..	9 21 10	.....	17 9 33.5	...	+ 15.43	...	
540*	18631 Lalande ...	April 1 ..	..	9 21 12.46	+ 3.652	55 49 ...	...	.....	7.5	
541*	τ^1 Hydræ (south)	March 29 ..	..	9 21 50.25	+ 3.040	92 9 ...	...	.....	6.0	
542	.....	March 31 ..	..	9 23 10	.....	5 36 35.7	...	+ 15.54	9.0	
543	.....	April 4 3	..	9 23 25.63	+25.193	2 11 6.2	...	+ 15.56	9.3 9.3	
544	λ Leonis	April 1 ..	..	9 23 30	.....	66 24 ...	0.6	+ 15.56	...	
545	3245 B.A.C.	March 14 ..	..	9 23 40	.....	17 46 44.9	...	+ 15.57	7.5	
546	.....	March 27 ..	..	9 25 20	.....	5 50 15.4	...	+ 15.66	8.0	
	.....	April 18 ..	..	.....	.....	14.6	...	.....	...
547	ι Leo. Min.....	March 7 ..	..	9 27 0.75	+ 3.684	53 32 ...	...	.....	6.3	
	.....	8 ..	..	0.71	.....	.....	...	.....	6.0	
	.....	11 ..	..	0.58	.....	.....	...	.....	6.0	
	.....	14 ..	..	0.63	.....	.....	...	.....	6.0	
548	33 Hydræ	March 26 ..	..	9 27 ...	+ 2.996	95 16 27.6	...	+ 15.77	...	
	.....	29 ..	..	21.63	.....	.....	...	.....	6.0	
	.....	31 ..	..	21.62	.....	.....	...	.....	6.0	
	.....	April 12 ..	..	.....	.....	27.4	...	.....	...
	.....	15 ..	..	.....	.....	26.3	...	.....	...
549	.....	April 1 3	..	9 30 14.05	+20.033	2 44 ...	...	+ 15.93	7.7	
	..... S.P. Sept.	3 ..	..	.....	.....	38.0	...	.....	8.0	
	..... Oct.	21 3	..	13.98	.....	.....	...	.....	7.7	
550	ι Leonis.....	March 7 ..	..	9 30 55	.....	63 59 9.0	...	+ 15.96	...	

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
551	ϵ Hydræ.....	March 7 ..	7 ..	9 32 30.04	+ 3.065	90 29 ...	...	+ 16.04	5.0
	.....	8 ..	8 ..	30.05	.....	.....	...	.....	4.7
	.....	13 ..	13 ..	.....	.....	.....	31.7	.....	...
	.....	April 5 ..	5 ..	.....	.....	29.0	...	.....	...
	.....	16 ..	16 ..	.....	.....	26.8	...	.....	...
552	15 Leonis <i>f</i>	March 7 ..	7 ..	9 35 6.40	+ 3.540	59 22 ...	...	.....	6.7
	.....	8 ..	8 ..	6.22	.....	.....	...	.....	6.0
	.....	13 ..	13 ..	6.27	.....	.....	...	.....	6.0
553	ψ Leonis.....	April 1 ..	1 ..	9 35 50	.....	75 19 17.6	...	+ 16.22	...
	.....	12 ..	12 ..	.....	.....	17.7	...	.....	...
	.....	18 ..	18 ..	.....	.....	17.9	...	.....	...
554	14 Leo. Min....	March 14 ..	14 ..	9 37 30	.....	44 13 8.6	...	+ 16.30	6.5
	.....	31 ..	31 ..	.....	.....	10.8	...	.....	6.7
555	ϵ Leonis	March 14 ..	14 ..	9 37 40.26	+ 3.421*	65 33 ...	...	+ 16.33*	...
	.....	29 ..	29 ..	.....	.....	.....	52.6	.....	...
	.....	April 19 ..	19 ..	.....	.....	53.2	...	.....	...
556*	18 Leonis	March 7 ..	7 ..	9 38 37.64	+ 3.242	77 31 ...	...	+ 16.36	6.5
	.....	11 ..	11 ..	37.84	.....	42.0	...	.....	6.3
	.....	April 4 ..	4 ..	.....	.....	42.4	...	.....	...
557	15 Leo. Min.....	April 1 ..	1 ..	9 39 16.95	+ 3.890	43 19 ...	...	.....	5.5
	.....	4 ..	4 ..	16.93	.....	.....	...	.....	...
558*	19 Leonis	March 7 ..	7 ..	9 39 ...	+ 3.238	77 46 2.3	...	+ 16.41	7.0?
	.....	8 ..	8 ..	41.21	.....	.....	...	.....	6.7
	.....	14 ..	14 ..	41.21	.....	.....	...	.....	7.0
	.....	27 ..	27 ..	41.15	.....	.....	...	.....	7.0
559	ν Urs. Maj.	March 29 ..	29 ..	9 40 43.06	+ 4.379	30 17 ...	...	.....	...
	.....	31 ..	31 ..	43.20	.....	.....	...	.....	...
560	23 Leonis	April 1 ..	1 ..	9 43 14.24	+ 3.255	76 16 ...	...	.....	6.0
	.....	4 ..	4 ..	14.23	.....	.....	...	.....	6.7

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
561	22 Leonis <i>g</i>	March 13 ..	..	9 43 40	.....	64 55 ...	32.7	+ 16.61	...
	.....	29 ..	..	.....	.....	.....	29.8	.....	...
	.....	April 15 ..	..	.....	.....	28.1	...	.....	...
	.....	16 ..	..	.....	.....	30.4	...	.....	...
562	μ Leonis	March 14 ..	..	9 44 33.94	+ 3.446	63 19 ...	...	.....	...
	.....	31 ..	..	34.07	.....	.....	...	.....	...
563	.....	March 8 ..	..	9 44 50	.....	5 23 35.4	...	+ 16.67	...
	.....	14 ..	..	.....	.....	36.6	...	.....	6.3
	.....	April 18 ..	..	.....	.....	35.3	...	.....	6.7
	.....S.P.	Sept. 3 ..	..	.....	.....	31.5	...	.....	7.0
564	.....	April 12 3	3	9 47 42.14	+15.101	3 28 17.2	...	+ 16.81	{ 8.3
	.....	15 ..	..	.....	.....	16.7	...	.....	{ 8.3
	.....	16 4	4	42.68	.....	17.1	...	.....	{ 8.3
	.....S.P.	Sept. 3 3	3	42.69	.....	.....	...	.....	{ ...
	.....	13 2	2	42.57	.....	.....	...	.....	8.5
	.....	16 3	3	42.05	.....	.....	...	.....	8.3?
565	.....	March 31 ..	..	9 48 ...	+23.754	2 0 53.8	...	+ 16.83	8.5
	.....S.P.	Sept. 3 2	2	9.73	.....	.....	...	.....	8.0
	.....	10 3	3	8.86	.....	.....	...	.....	...
	.....	13 3	3	9.94	.....	.....	...	.....	8.3?
	.....	16 3	3	9.43	.....	.....	...	.....	8.0
566	3393 B.A.C.	March 27 5	5	9 48 24.22	+ 5.870	14 33 ...	...	.....	7.3
	.....	29 5	5	24.64	.....	.....	...	.....	7.0
567	20 Leo. Min.	March 14 5	5	9 52 41.92	+ 3.524	57 22 ...	...	.....	6.0
	.....	27 ..	..	42.11	.....	.....	...	.....	5.7
568	π Leonis	March 7 ..	..	9 52 35	.....	81 15 ...	61.9	+ 17.04	...
	.....	11 ..	..	.....	.....	58.0	...	.....	...
	.....	April 18 ..	..	.....	.....	59.0	...	.....	...
569	13 Sextantis	March 14 ..	..	9 56 40.76	+ 3.119	86 6 ...	...	.....	7.3
	.....	29 ..	..	40.84	.....	.....	...	.....	6.7
570	21 Leo. Min.	April 12 ..	..	9 58 55.56	+ 3.560	54 3 ...	...	.....	5.5
	.....	16 ..	..	55.63	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
571	3452 B.A.C.	March 14 ..		9 59 18.83	+ 2.681	120 12 ...	...	.....	...
572	η Leonis	March 29 ..		9 59 30	.....	72 32 ...	14.7	+ 17.35	...
	.....	April 16 ..		.....	.....	11.0	...	.....	...
573	Regulus	March 11 ..		10 0 41.97	+ 3.203*	77 19 ...	...	+ 17.39*	...
	.....	13 ..		41.97	.....	.....	...	.....	...
	.....	April 15 ..		.....	.....	48.3	...	.....	...
574	λ Hydræ	March 7 ..		10 3 ...	+ 2.938	101 38 38.1	...	+ 17.52	...
	.....	11 ..		.....	.....	36.9	...	.....	...
	.....	29 ..		34.18	.....	.....	...	.....	...
	.....	31 ..		34.19	.....	.....	...	.....	4.5
	.....	April 18 ..		.....	.....	38.5	...	.....	...
575	34 Leonis	March 31 ..		10 3 50	.....	75 56 ...	10.1	+ 17.54	...
	.....	April 12 ..		.....	.....	8.1	...	.....	...
576	3476 B.A.C.	April 12 ..		10 4 6.26	+ 2.997	96 37 ...	...	.....	6.7
	.....	16 ..		6.23	.....	.....	...	.....	7.0
577	20 Sextantis	April 12 ..		10 6 34.66	+ 2.998	96 40 ...	...	.....	7.3
	.....	16 ..		34.72	.....	.....	...	.....	7.5
578	3489 B.A.C.	March 14 ..		10 6 42.20	+ 2.758	116 19 ...	...	+ 17.65	6.5 ²
	.....	29 ..		42.30	.....	.....	...	.....	6.5
	.....	April 2 ..		.....	.....	6.8	...	.....	...
579*	32 Urs. Maj.	April 1 ..		10 7 31.71	+ 4.475	24 11 ...	...	.....	5.5
	.....	18 ..		31.76	.....	.....	...	.....	5.7
580	23 Leo. Min.	March 13 ..		10 8 3.08	+ 3.435	59 59 ...	...	.....	6.0
	.....	26 ..		3.14	.....	.....	...	.....	...
581	24 Leo. Min.	April 16 ..		10 8 20	.....	60 35 54.8	...	+ 17.72	...
582	.....	March 26 4		10 8 46.59	+ 14.191	3 13 ...	...	.....	...
	.....S.P.	Oct. 24 3		46.19	.....	.....	...	.....	8.5
	.....	25 3		47.08	.....	.....	...	.....	8.5
583	39 Leonis	March 31 ..		10 9 19.10	+ 3.346	66 11 ...	...	.....	6.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
584	3515 B.A.C.	March 29 ..		10 10 5	.....	45 13 15.8	...	+ 17.80	5.7
	.....	April 15 ..		.....	.....	16.9	...	.....	...
585	40 Leonis.....	March 29 ..		10 11 53.53	+ 3.295	69 48 ...	...	.....	...
	.....	April 12 ..		53.69	.....	.....	...	.....	5.5
586	γ Leonis (2d)....	March 11 ..		10 12 2.28	+ 3.299	69 26 ...	...	.....	...
	.....	13 ..		2.05	.....	.....	...	.....	...
587	3528 B.A.C.	April 25 ..		10 13 5	.....	6 42 45.4	...	+ 17.91	...
588	.....S.P.	Oct. 18 3		10 13 36.17	+10.099	4 52 ...	...	.....	7.7
589	μ Urs. Maj.	March 14 ..		10 13 45	.....	47 46 39.1	...	+ 17.94	...
	.....	April 18 ..		.....	.....	39.9	...	.....	...
590*	42 Leonis	March 26 ..		10 14 ...	+ 3.240	74 17 60.0	...	+ 17.95	6.3
	.....	April 1 5		5.53	.....	.....	...	.....	...
	.....	16 ..		.....	.....	58.0	...	.....	...
591*	24 Sextantis	March 11 ..		10 16 6.16	+ 3.070	90 10 ...	...	+ 18.03	7.0
	.....	13 ..		6.05	.....	.....	...	.....	6.5
	.....	31 ..		6.00	.....	.....	...	.....	7.0
	.....	April 15 ..		.....	.....	26.9	...	.....	...
	.....	24 ..		.....	.....	28.7	...	.....	...
592	30 Leo. Min.....	March 13 ..		10 17 40	.....	55 28 ...	15.4	+ 18.09	...
	.....	27 ..		.....	.....	19.3	...	.....	...
	.....	April 12 ..		.....	.....	19.5	...	.....	...
593	3566 B.A.C.	March 29 ..		10 19 4.49	+ 3.015	95 41 ...	...	+ 18.14	7.3
	.....	31 ..		4.30	.....	.....	...	.....	7.3
	.....	April 5 ..		.....	.....	49.1	...	.....	7.0
	.....	12 ..		4.34	.....	.....	...	.....	7.7
	.....	16 ..		.....	.....	44.3	...	.....	7.3
594	β Leo. Min.	April 1 5		10 19 32.69	+ 3.506	52 34 ...	...	.....	...
	.....	18 ..		32.80	.....	.....	...	.....	...
595	45 Leonis.....	March 31 ..		10 20 0	.....	79 30 ...	20.2	+ 18.18	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
596	3576 B.A.C.	April 4	..	10 20 13.86	+ 3.070	90 14 ...	...	.....	7.3
	.....	5	..	14.05	.....	.....	...	.....	7.7
597	36 Urs. Maj.	March 8	..	10 21 20	.....	33 16 56.3	...	+ 18.23	...
	.....	14	..	.....	.....	58.0	...	.....	...
	.....	26	..	.....	.....	58.8	...	.....	5.5
598	.....	April 24	..	10 24 5	.....	4 31 10.0	...	+ 18.33	8.0
599	ρ Leonis	April 15	..	10 25 15	.....	79 57 11.7	...	+ 18.37	...
600	37 Urs. Maj.	March 26	..	10 25 51.32	.....	32 11 ...	...	.....	...
	.....	April 18	..	51.38	.....	.....	...	.....	5.5
601*	48 Leonis	March 27	..	10 27 ...	+ 3.142	82 18 21.3	...	+ 18.44	5.5
	.....	29	..	17.34	.....	.....	...	.....	5.7
	.....	31	..	17.11	.....	.....	...	.....	5.7
	.....	April 5	..	17.35	.....	.....	...	.....	5.7
	.....	16	..	.....	.....	21.8	...	.....	5.7
	.....	18	..	.....	.....	.....	23.5	.....	...
602	3629 B.A.C.	March 27	3	10 29 1.55	+ 6.401	8 49 ...	...	.....	6.5
	.....	April 12	3	1.68	.....	.....	...	.....	6.5
603*	3645 B.A.C.	March 26	..	10 31 ...	+ 4.405	20 48 24.0	...	+ 18.58	6.0
	.....	April 5	..	.....	.....	26.0	...	.....	6.0
	.....	12	..	.....	.....	22.6	...	.....	...
	.....	24	..	30.31	.....	.....	...	.....	5.7
604*	38 Urs. Maj.	April 4	5	10 32 4.47	+ 4.221	23 31 ...	...	+ 18.60	...
	.....	5	5	4.56	.....	.....	...	.....	5.3
	.....	24	..	.....	.....	50.7	...	.....	...
605	33 Sextantis	April 15	..	10 34 5	.....	90 59 9.2	...	+ 18.66	...
606*	34 Sextantis	March 27	..	10 35 11.22	+ 3.109	85 40 ...	...	.....	7.0
	.....	April 18	..	11.29	.....	.....	...	.....	6.5
607*	51 Leonis <i>m</i>	April 4	..	10 38 38.93	+ 3.237	70 21 ...	...	+ 18.80	6.0
	.....	12	..	38.81	.....	.....	...	.....	6.0
	.....	18	..	.....	.....	.....	0.6	.....	...
	.....	28	..	.....	.....	0.0	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
608	52 Leonis <i>k</i>	March 26 ..	10	38 47.66	+ 3.195	75 2 45.2	...	+ 18.81	{ ...
	.....	27 ..		47.51	.....	.....	...	.....	{ 5.7
	.....	April 1 ..		47.49	.....	45.3	...	.....	{ 6.0
									{ 5.7
									{ ...
609	.....	March 27 ..	10	40 50	.....	4 52 40.7	...	+ 18.87	8.5
	.....	31 ..		.....	.....	38.6	...	.....	8.5
	.....	April 5 ..		.....	.....	42.5	...	.....	...
	.....	16 ..		.....	...	39.9	...	.....	8.7
610	<i>v</i> Hydræ	March 27 ..	10	42 31.29	+ 2.949	105 27 ...	...	.....	...
	.....	29 ..		31.22	.....	.....	...	.....	...
611	46 Leo. Min.	April 12 ..	10	45 15	.....	55 0 35.5	...	+ 19.00	...
	.....	24 ..		.....	.....	34.1	...	.....	...
612	<i>b</i> ³ Hydræ	March 27 ..	10	46 27.01	+ 2.924	109 22 ...	...	.....	...
	.....	April 4 ..		27.01	.....	.....	...	.....	6.0?
613	47 Leo. Min.	April 23 ..	10	46 57.45	+ 3.363	55 12 ...	...	.....	...
614*	3747 B.A.C.	March 31 5	10	48 17.77	+ 5.102	11 27 ...	...	+ 19.08	6.0
	.....	April 1 3		17.65	.....	.....	...	.....	6.3
	.....	5 ..		.....	.....	41.5	...	.....	6.7
	.....	15 ..		.....	.....	37.6	...	.....	6.5
	.....	16 ..		.....	.....	36.1	...	.....	...
	..... S.P. Oct. 18 ..			.....	.....	36.7	...	.....	...
615	55 Leonis	April 5 ..	10	48 18.11	+ 3.083	83 3 ...	...	.....	6.3
	.....	18 ..		17.93	.....	.....	...	.....	6.3
616	.....	Feb. 14 ..	10	50 30	.....	3 40 53.6	...	+ 19.14	...
	.....	March 27 ..		.....	.....	54.7	...	.....	8.3
	.....	29 ..		.....	.....	56.5	...	.....	8.5
	.....	31 ..		.....	.....	54.5	...	.....	8.5
	.....	April 1 ..		.....	.....	52.2	...	.....	...
	.....	4 ..		.....	.....	54.6	...	.....	...
617	47 Urs. Maj.	March 26 ..	10	51 23.36	+ 3.417	48 48 ...	...	.....	...
	.....	April 5 5		23.38	.....	.....	...	.....	5.0
	.....	12 ..		23.37	.....	.....	...	.....	5.0
	.....	18 ..		23.47	.....	.....	...	.....	5.3

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
618*	3764 B.A.C.	March 27	5	10 52 43.77	+ 4.649	13 47 ...	...	+ 19.20	7.0
	.....	April 4	5	43.84	.....	.....	...	.....	7.0
	.....	24	..	.....	.....	6.0	...	.....	7.5
	.....S.P.	Oct. 24	..	.....	.....	4.8	...	.....	8.0
619	α Crateris	April 24	..	10 52 45.73	+ 2.950	107 31 ...	...	+ 19.20	...
	.....	28	..	.....	.....	57.6	...	.....	...
620	.....	March 29	3	10 53 15.05	+ 16.994	1 35 ...	...	.....	7.5
	.....	April 5	3	14.73	.....	.....	...	.....	7.5
	.....	12	3	14.82	.....	.....	...	.....	7.5
	.....S.P.	Oct. 30	3	14.70	.....	.....	...	.....	7.7
621	α Urs. Maj.	March 31	..	10 54 48.24	+ 3.777*	27 28 ...	...	+ 19.34*	...
	.....	April 1	..	48.25	.....	.....	...	.....	...
	.....	16	..	48.68	.....	.....	...	.....	...
	.....	18	..	.....	.....	.....	4.2	.....	...
	.....	23	..	48.60	.....	.....	...	.....	...
622	3779 B.A.C.	March 26	..	10 55 52.45	+ 3.072	89 59 ...	...	.....	7.0
	.....	April 24	..	52.74	.....	.....	...	.....	6.7
623	.....S.P.	Oct. 18	..	10 56 20	.....	3 34 51.5	...	+ 19.28	...
624	51 Leo. Min.	March 29	5	10 57 34.05	+ 3.247	64 1 ...	...	.....	7.3
	.....	April 12	..	34.02	.....	.....	...	.....	8.0
625	χ Leonis	March 26	..	10 57 ...	+ 3.123	81 53 11.1	...	+ 19.32	5.0
	.....	April 15	..	.....	.....	10.1	...	.....	...
	.....	16	..	35.25	.....	10.1	...	.....	...
	.....	18	..	35.21	.....	.....	...	.....	...
626	β Crateris	March 27	..	11 4 ...	+ 2.943	112 2 23.2	...	+ 19.47	...
	.....	31	..	34.74	.....	.....	...	.....	...
	.....	April 1	..	35.03	.....	.....	...	.....	...
	.....	16	..	34.92	.....	.....	...	.....	...
627	3831 B.A.C.	March 26	..	11 6 10	.....	69 4 57.9	...	+ 19.50	6.5
	.....	April 16	..	.....	.....	58.0	...	.....	7.0
628	δ Leonis	March 26	..	11 6 26.77	+ 3.204*	68 41 ...	...	.....	...
	.....	April 4	..	26.71	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
629	θ Leonis	April 12 ..	11	6 40.95	+ 3.162	73 47 ...	...	.....	...
	.....	23 ..		41.01	.....	.....	...	.....	...
630*	73 Leonis <i>n</i>	April 1 ..	11	8 19.90	+ 3.147	75 54 ...	...	+ 19.55	...
	.....	5 ..		19.90	.....	.....	...	.....	5.5
	.....	15 ..		.....	.....	24.8	...	.....	...
	.....	16 ..		19.81	.....	.....	...	.....	...
	.....	May 3 ..		.....	.....	26.5	...	.....	...
631	75 Leonis	March 26 ..	11	9 52.77	+ 3.068	87 12 ...	...	.....	...
	.....	29 ..		52.67	.....	.....	...	.....	6.0
	.....	31 ..		52.89	.....	.....	...	.....	5.7
632	ξ Urs. Maj. (1st). ..	April 4 ..	11	10 29.62	+ 3.253	57 39 38.7	...	+ 19.59	...
	.....	5 ..		.....	.....	42.0	...	.....	...
	.....	12 ..		29.46	.....	38.5	...	.....	...
	.....	24 ..		29.50	.....	.....	...	.....	...
633	ξ Urs. Maj. (2d). ..	April 5 ..	11	10 29.84	+ 3.253	57 40 ...	...	.....	4.7
	.....	23 ..		29.94	.....	.....	...	.....	...
634	δ Ilyd. & Crat. ...	March 26 ..	11	12 8.63	+ 2.994*	104 0 ...	...	.....	...
	.....	April 1 ..		8.75	.....	.....	...	.....	...
635	3861 B.A.C.	March 27 ..	11	13 35	.....	84 19 48.4	...	+ 19.65	7.0
636	σ Leonis	April 16 ..	11	13 42.56	+ 3.104	83 10 53.5	...	+ 19.65	...
637	3863 B.A.C.	March 31 ..	11	14 2.79	+ 3.107	82 35 ...	...	.....	7.7
	.....	April 4 ..		2.83	.....	.....	...	.....	7.3
	.....	24 5		2.82	.....	.....	...	.....	7.5
638	λ Crateris	April 15 ..	11	16 ...	+ 2.990	107 59 18.3	...	+ 19.69	...
	.....	23 ..		13.81	.....	.....	...	.....	...
	.....	24 5		13.72	.....	.....	...	.....	6.3
639*	ϵ Crateris	March 31 ..	11	17 20.32	+ 3.028	100 4 ...	...	.....	...
	.....	April 1 ..		20.53	.....	.....	...	.....	...
	.....	4 ..		20.44	.....	.....	...	.....	5.7
640	80 Leonis	April 5 ..	11	18 26.11	+ 3.092	85 21 ...	...	.....	7.0
	.....	16 ..		26.04	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
641	83 Leonis (2d) ...	April 24	..	11 19 29.10	+ 3.088	86 12 ...	...	.....	8.3
642	7 Leonis	March 26	..	11 20 30	.....	86 21 3.8	...	+ 19.76	...
	.....	April 21	..	.....	.....	2.9	...	.....	...
	.....	May 3	..	.....	.....	3.9	...	.....	...
643	87 Leonis <i>e</i>	March 31	..	11 22 57.50	+ 3.063	92 12 ...	...	+ 19.80	5.5
	.....	April 1	..	57.58	.....	.....	...	.....	5.7
	.....	12	..	57.42	.....	.....	...	.....	...
	.....	23	..	.....	.....	34.6	...	.....	...
	.....	24	..	.....	.....	31.5	...	.....	...
	.....	May 13	..	.....	.....	32.0	...	.....	...
644	88 Leonis	April 4	..	11 24 ...	+ 3.128	74 49 ...	58.9	+ 19.81	...
	.....	5	..	18.79	.....	.....	...	.....	6.5
	.....	23	..	18.85	.....	.....	...	.....	7.0?
645	3920 B.A.C.	March 31	5	11 24 37.37	+ 3.051	95 40 ...	...	.....	6.7
	.....	April 1	..	37.32	.....	.....	...	.....	6.7
646	3922 B.A.C.	April 4	..	11 25 8.51	+ 2.962	118 28 ...	...	.....	...
	.....	12	..	8.60	.....	.....	...	.....	...
647	89 Leonis	March 26	5	11 26 59.90	+ 3.085	86 8 ...	...	.....	6.0
	.....	April 1	..	59.76	.....	.....	...	.....	5.7
648	59 Urs. Maj.	April 5	..	11 30 40	.....	45 34 35.6	...	+ 19.89	...
	.....	15	..	.....	.....	34.9	...	.....	...
	.....	23	..	.....	.....	32.9	...	.....	...
649	Crateris	March 31	..	11 31 21.43	+ 3.056	102 25 ...	...	.....	5.7
	.....	April 1	..	21.57	.....	.....	...	.....	...
650	61 Urs. Maj.	March 29	..	11 33 27.60	+ 3.180	54 59 ...	...	+ 19.92	5.7
	.....	April 12	..	27.43	.....	.....	...	.....	5.7
	.....	21	..	.....	.....	4.7	...	.....	...
	.....	23	..	27.75	.....	.....	...	.....	6.0?
	.....	24	..	.....	.....	4.2	...	.....	...
651	62 Urs. Maj.	April 1	..	11 34 4.07	+ 3.168	57 27 ...	...	.....	5.7
	.....	16	..	4.25	.....	.....	...	.....	...
	.....	21	..	4.11	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
652	3969 B.A.C.	March 31 ..	11	34 33.02	+ 2.980	121 42 ...	...	.....	...
653	ξ Virginis	April 4 ..	11	37 51.63	+ 3.093	80 56 ...	...	+ 19.96	6.0?
	.....	12 ..		.....	.....	28.3	...	.....	...
	.....	21 ..		51.69	.....	.....	...	.....	...
	.....	23 ..		.....	.....	28.5	...	.....	...
	.....	May 13 ..		.....	.....	26.0	...	.....	...
654	ν Virginis	March 29 ..	11	38 27.51	+ 3.088	82 39 ...	...	+ 19.97	4.3
	.....	April 1 ..		27.57	.....	.....	...	.....	...
	.....	16 ..		27.41	.....	49.1	...	.....	...
655	3992 B.A.C.	April 5 ..	11	41 ...	+ 3.102	74 55 1.8	...	+ 19.99	6.3
	.....	12 ..		13.97	.....	.....	...	.....	6.3
	.....	16 ..		14.25	.....	.....	...	.....	...
	.....	23 ..		14.17	.....	.....	...	.....	7.0?
656	.....	March 29 ..	11	42 21.31	+ 3.154	51 17 ...	...	+ 20.00	10.5
	.....	April 4 5		21.39	.....	.....	...	.....	10.3
	.....	May 5 ..		.....	.....	33.6	...	.....	10.3
	.....	9 ..		.....	.....	27.5	...	.....	...
657	β Virginis	April 16 6	11	43 11.96	+ 3.076	87 25 25.5	...	+ 20.00	...
658	1830 Gr.	March 29 ..	11	44 40.02	+ 3.144	51 14 ...	...	+ 20.01	6.3
	.....	April 1 ..		39.97	.....	.....	...	.....	6.3
	.....	12 ..		.....	.....	56.2	...	.....	6.7
	.....	15 ..		.....	.....	55.9	...	.....	6.5
	.....	21 ..		.....	.....	55.5	...	.....	...
	.....	23 ..		.....	.....	55.4	...	.....	...
	.....	May 13 ..		.....	.....	54.9	...	.....	...
659	γ Urs. Maj.	April 21 ..	11	46 14.52	+ 3.196*	35 30 ...	...	+ 20.03*	...
	.....	23 ..		14.36	.....	.....	...	.....	...
	.....	24 ..		14.40	.....	.....	...	.....	...
	..... S.P. Oct.	25 ..		.....	.....	17.0	...	.....	...
660	.....	April 4 ..	11	46 37.04	+ 3.135	51 14 ...	...	.....	9.3
	.....	12 ..		37.19	.....	.....	...	.....	9.0
661	4021 B.A.C.	April 16 ..	11	46 41.43	+ 3.080	84 19 ...	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
662	.....	March 29 ..		11 46 55.95	+ 3.133	51 9 ...	...	+ 20.02	9.7
	.....	April 1 ..		55.91	.....	.....	...	.....	9.7
	.....	May 5 ..		.....	.....	34.0	...	.....	9.5
	.....	9 ..		.....	.....	35.8	...	.....	...
	.....	10 ..		.....	.....	35.9	...	.....	...
663	(1st).....S.P.	Oct. 27 4		11 51 20.27	+ 4.332	2 12 ...	...	.....	10.3
	.....	Nov. 5 3		20.79	.....	.....	...	.....	10.0
664	(2d)	April 5 ..		11 51 ...	+ 4.383	2 12 17.7	...	+ 20.04	8.3
	.....S.P.	Oct. 27 4		41.58	.....	.....	...	.....	8.0
665	4043 B.A.C.	April 5 ..		11 51 41.34	+ 3.073	88 40 ...	...	.....	6.7
	.....	16 ..		41.55	.....	.....	...	.....	6.5
	.....	21 ..		41.46	.....	.....	...	.....	7.0?
666	7 Virginis <i>b</i>	May 3 ..		11 52 34.60	+ 3.075	85 33 ...	...	.....	...
667	4055 B.A.C.	April 16 ..		11 53 48.05	+ 3.075	85 34 ...	...	.....	7.3
668	67 Urs. Maj.	April 21 ..		11 54 ...	+ 3.101	46 9 17.8	...	+ 20.05	...
	.....	24 ..		47.55	.....	18.8	...	.....	5.7
	.....S.P.	Oct. 25 ..		.....	.....	18.5	...	.....	...
669	4059 B.A.C.	April 16 ..		11 55 10	.....	46 5 36.7	...	+ 20.05	6.7
670	4064 B.A.C.	April 16 ..		11 56 23.49	+ 3.074	83 38 ...	...	.....	6.5
	.....	May 3 ..		23.54	.....	.....	...	.....	...
671	1850 Gr. ....S.P.	Nov. 14 3		11 57 25.72	+ 3.310	3 37 ...	...	.....	6.7
	.....	24 3		25.42	.....	.....	...	.....	6.5
	.....	27 3		25.40	.....	.....	...	.....	6.5
672	4080 B.A.C.	April 16 ..		11 59 52.50	+ 3.071	95 58 ...	...	.....	7.5
	.....	24 ..		52.38	.....	.....	...	.....	8.5
673	<i>a</i> Corvi	April 12 ..		12 0 ...	+ 3.074	113 55 30.8	...	+ 20.06	...
	.....	21 ..		59.48	.....	.....	...	.....	...
	.....	May 3 ..		59.62	.....	30.9	...	.....	...
674	10 Virginis	May 10 ..		12 2 20	.....	87 17 34.9	...	+ 20.06	6.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
675	ε Corvi.....	May 3	5	12 2 43.59	+ 3.078	111 49 ...	...	.....	...
676*	A.Z. clxxxii. 84...	April 16	..	12 3 ...	+ 3.017	20 29 35.8	...	+ 20.05	9.0
	.....	21	..	.....	.....	36.4	...	.....	9.0
	.....	24	..	29.74	.....	33.4	...	.....	9.0
	.....	May 9	..	29.66	.....	.....	...	.....	8.3
677*	4112 B.A.C.	April 16	5	12 5 24.14	+ 2.918	11 35 ...	...	.....	...
678	.....S.P.	Nov. 5	5	12 6 41.70	+ 2.085	2 16 ...	...	.....	7.7
679	4119 B.A.C.	May 3	..	12 6 52.93	+ 3.075	94 55 ...	...	.....	...
680	δ Urs. Maj.	April 21	..	12 8 17.03	+ 2.996	32 10 ...	...	.....	...
681*	13 Virginis	April 19	..	12 11 ...	+ 3.072	89 59 10.9	...	+ 20.03	...
	.....	May 3	..	17.55	.....	.....	...	.....	...
	.....	10	..	.....	.....	11.1	...	.....	5.7
	.....	13	..	17.33	.....	.....	...	.....	...
682*	4143 B.A.C.	April 16	..	12 12 19.99	+ 2.783	14 2 ...	...	.....	...
683	10 Comæ	April 21	5	12 12 35.89	+ 3.030	60 44 ...	...	.....	7.0?
	.....	24	..	35.95	.....	.....	...	.....	6.5
684*	70 Urs. Maj.	May 13	..	12 13 50	.....	31 20 0.8	...	+ 20.02	...
685	1884 Gr.	April 12	..	12 14 20	.....	1 30 8.0	...	+ 19.94*	6.7
	.....	16	..	.....	.....	8.3	...	.....	...
686	17 Virginis	April 21	..	12 15 10	.....	83 53 35.7	...	+ 20.01	...
	.....	24	..	.....	.....	.....	34.4	.....	...
	.....	May 3	..	.....	.....	36.3	...	.....	...
687*	Weisse xii. 276....	May 3	..	12 17 46.30	+ 3.092	100 49 ...	...	.....	...
	.....	9	..	46.14	.....	.....	...	.....	6.7
688	1889 Gr.	May 9	..	12 18 0	.....	5 32 54.0	...	+ 19.99	...
	.....	10	..	.....	.....	53.4	...	.....	9.0
	.....S.P.	Nov. 6	..	.....	.. ..	52.3	...	.....	...
689	4184 B.A.C.	May 13	..	12 18 0.26	+ 3.024	65 16 ...	...	.....	6.0?

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
690	γ Comæ.....	April 12 ..	12	12 19 45.48	+ 3.008	60 56 ...	...	.....	...
	.....	21 ..		45.47	.....	.....	...	.....	...
691*	A.Z. clxxxix. 77..	April 21 ..	12	22 ...	+ 2.719	20 17 3.1	...	+ 19.96	9.0
	.....	24 ..		19.56	.....	.....	...	.....	9.3
	.....	May 9 5		19.43	.....	.....	...	.....	8.7
	.....	13 ..		.....	.....	1.1	...	.....	...
	.....S.P.	Oct. 28 ..		.....	.....	1.9	...	.....	8.7
692	δ Corvi	April 12 ..	12	22 25.07	+ 3.109	105 43 ...	...	.....	...
	.....	21 ..		25.04	.....	.....	...	.....	...
	.....	May 3 ..		25.15	.....	.....	...	.....	...
693	20 Comæ.....	May 13 ..	12	22 29.08	+ 3.020	68 18 ...	...	.....	...
694	4213 B.A.C.	April 19 ..	12	22 40	.....	102 35 40.2	...	+ 19.96	...
695*	A.Z. clxxxix. 79..	May 3 ..	12	25 30	.....	20 41 19.8	...	+ 19.93	7.7
	.....	9 ..		.....	.....	18.7	...	.....	7.5
	.....	10 ..		.....	.....	17.5	...	.....	7.3
696	21 Virginis q	May 20 ..	12	26 20	.....	98 39 25.8	...	+ 19.92	...
697	β Corvi.....	April 21 ..	12	26 49.76	+ 3.130*	112 36 ...	...	.....	...
698	β Can. Ven.	May 3 ..	12	26 53.97	+ 2.930	47 52 ...	...	.....	...
	.....	13 ..		54.02	.....	.....	...	.....	...
699*	χ Virginis	May 3 ..	12	31 49.01	+ 3.096	97 12 ...	...	.....	...
	.....	9 ..		48.98	.....	.....	...	.....	5.5
700	γ Virginis (south)	April 12 ..	12	34 20	.....	90 39 36.5	...	+ 19.83	...
701*	A.Z. clxxxix. 93..	April 19 ..	12	35 5.31	+ 2.532	20 41 ...	...	+ 19.82	9.3
	.....	21 ..		.....	.....	35.0	...	.....	9.0
	.....	24 ..		5.37	.....	.....	...	.....	9.7
	.....	May 9 ..		.....	.....	33.8	...	.....	9.0
	.....	10 ..		.....	.....	34.1	...	.....	8.7
	.....	19 ..		.....	.....	32.3	...	.....	...
702*	A.Z. clxxxix. 94..	May 13 ..	12	35 10	.....	20 33 12.9	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
703	1923 Gr.	April 19 ..		12 37 15	.....	5 33 56.8	...	+ 19.79	7.3
704	10 Can. Ven.	April 21 ..		12 38 10.33	+ 2.885	49 56 ...	...	+ 19.78	...
		May 3 ..		10.26	.....	16.4	...	.....	...
705	33 Virginis	May 9 ..		12 39 3.52	+ 3.030	79 39 ...	...	.....	6.0
		13 ..		3.54	.....	.....	...	.....	...
		19 ..		3.44	.....	.....	...	.....	6.0
706	7 Draconis.....S.P.	Oct. 28 ..		12 41 40	.....	22 25 21.0	...	+ 19.73	6.5
707	11 Can. Ven.	May 13 ..		12 42 3.67	+ 2.789	40 45 ...	...	.....	...
		19 ..		3.74	.....	.....	...	.....	6.5
708	33 Comæ	May 9 ..		12 45 12.99	+ 2.987	72 6 ...	...	.....	7.3
709	38 Virginis	April 19 ..		12 45 50	.....	92 46 10.2	...	+ 19.66	...
		May 20 ..		.....	.....	9.0	...	.....	...
710	ε Urs. Maj.	May 20 ..		12 47 41.11	+ 2.650	33 15 ...	...	.....	...
711	1937 Gr.	April 16 5		12 47 60.43	+ 0.330*	5 48 ...	...	.....	...
		19 3		60.00	.....	.....	...	.....	5.7
		21 5		60.17	.....	.....	...	.....	6.0
		24 3		59.23	.....	.....	...	.....	6.0
		May 9 3		59.71	.....	.....	...	.....	6.5
		S.P. Oct. 25 3		59.21	.....	.....	...	.....	6.7
		28 5		59.99	.....	.....	...	.....	6.5
		Nov. 6 5		59.70	.....	.....	...	.....	6.0
712	1940 Gr.	April 19 3		12 48 8.17	+ 0.314*	5 48 ...	...	+ 19.58*	5.3
		21 5		8.10	.....	.....	...	.....	5.5
		24 3		7.93	.....	.....	...	.....	5.3
		S.P. Nov. 5 ..		.....	.....	13.4	...	.....	...
713	12 Can. Ven. (2d)	May 13 ..		12 49 17.15	+ 2.818*	50 54 ...	...	.....	...
714	.....	May 9 ..		12 53 20	.....	5 27 9.7	...	+ 19.52	10.3
		10 ..		.....	.....	9.9	..	.....	10.0
715	4363 B.A.C.	May 20 ..		12 54 9.68	+ 3.059	87 42 ...	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						h.	R.		
716	9 Draconis.....S.P.	Oct. 28	..	h. m. s. 12 54 30	.....	22 37 31.4	...	+ 19.49	...
717*	78 Urs. Maj.	April 19	..	12 54 30	.....	32 51 24.7	...	+ 19.49	...
	.....	21	..	.....	.....	23.9	...	.....	...
	.....	May 13	..	.....	.....	23.6	...	.....	...
718	ε Virginis.....	May 3	5	12 55 0.59	+ 3.006	78 15 ...	...	+ 19.48	...
	.....	17	..	.....	.....	54.7	...	.....	...
	.....	19	..	0.53	.....	.....	...	.....	...
719	49 Virginis <i>g</i>	April 24	..	13 0 20	.....	99 58 9.1	...	+ 19.36	...
	.....	May 24	..	.....	.....	9.7	...	.....	...
720	4393 B.A.C.	April 21	..	13 0 59.87	+ 2.883	61 40 ...	...	.....	6.7
	.....	May 19	..	60.02	.....	.....	...	.....	6.5
721	θ Virginis	April 19	..	13 2 29.99	+ 3.102	94 46 8.4	...	+ 19.31	...
	.....	May 20	..	29.90	.....	.....	...	.....	...
722*	A. Z. clxxxix. 127	May 10	..	13 3 40	.....	21 6 6.4	...	+ 19.29	9.7
723	18 Can. Ven.....	May 24	..	13 4 56.20	+ 2.740	48 26 ...	...	.....	...
724	57 Virginis	May 17	..	13 8 10	.....	109 10 31.8	...	+ 19.18	...
725	59 Virginis <i>e</i>	April 19	..	13 9 37.57	+ 3.000	79 49 ...	...	+ 19.14	...
	.....	May 20	..	37.77	.....	.....	...	.....	...
	.....	22	..	.....	.....	18.5	...	.....	...
	.....	24	..	37.70	.....	.....	...	.....	...
726	2006 Gr.	May 13	3	13 12 0.70	-11.911	1 35 ...	...	.....	...
	.....	19	3	0.09	.....	.....	...	.....	7.3
	.....	20	3	0.11	.....	.....	...	.....	...
727*	A. Z. cciv. 16.....	April 24	..	13 13 ...	+ 2.006	21 33 13.0	...	+ 19.03	7.3
	.....	May 24	5	25.40	.....	13.5	...	.....	7.0
	.....S.P.	Dec. 17	..	.....	.....	13.5	...	.....	6.7
728	4473 B.A.C.	April 19	..	13 15 2.67	+ 3.113	95 26 ...	...	.....	7.0?
729	66 Virginis	May 22	..	13 17 5	.....	94 24 36.4	...	+ 18.93	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
730	Spica	April 19 ..	13	17 36.83	+ 3.149*	100 24 28.8	...	+ 18.96*	...
	.....	May 9 ..		36.77	.....	.....	...	.....	...
	.....	19 ..		36.72	.....	.....	...	.....	...
	.....	20 ..		36.72	.....	30.4	...	.....	...
	.....	24 ..		36.61	.....	.....	...	.....	...
731	ζ Urs. Maj. (1st).	May 22 5	13	18 7.34	+ 2.417	34 19 ...	...	.....	...
732	ζ Urs. Maj. (2d) S.P.	Nov. 6 ..	13	18 10	.....	34 19 26.2	...	+ 18.90	...
733	.....S.P.	Nov. 10 2	13	18 35.51	- 1.740	5 20 ...	...	.....	...
	.....	29 5		35.96	.....	.....	...	.....	8.7
	.....	Dec. 15 3		35.41	.....	.....	...	.....	8.7
	.....	17 3		35.67	.....	.....	...	.....	8.3
734	80 Urs. Maj. <i>g</i>	May 10 ..	13	19 30	.....	34 15 38.4	...	+ 18.86	...
735	2007 Gr.	May 22 3	13	20 38.28	- 2.792	4 30 ...	...	.....	7.3
736	.....S.P.	Dec. 17 ..	13	21 50	.....	5 20 51.3	...	+ 18.79	...
737*	72 Virginis <i>l</i> ¹	May 9 ..	13	22 55	.....	95 43 30.1	...	+ 18.76	6.7
738*	4509 B.A.C.	April 19 ..	13	23 3.70	+ 2.901	70 12 ...	...	.....	7.0?
	.....	May 20 5		3.68	.....	.....	...	.....	...
739	4515 B.A.C.	May 22 ..	13	24 22.92	+ 3.086	91 35 ...	...	.....	7.3
740*	74 Virginis <i>l</i> ²	May 22 ..	13	24 30	.....	95 30 38.9	...	+ 18.71	...
	.....	28 ..		.....	.....	38.5	...	.....	6.5
741	75 Virginis	April 19 ..	13	25 ...	+ 3.199	104 37 15.0	...	+ 18.69	7.0
	.....	May 9 ..		10.27	.....	.....	...	.....	6.3
	.....	13 ..		10.31	.....	.....	...	.....	...
742	ζ Virginis	May 20 ..	13	27 20	.....	89 51 29.6	...	+ 18.62	...
	.....	24 ..		.....	.....	28.2	...	.....	...
743	24 Can. Ven.	May 9 ..	13	28 34.14	+ 2.476	40 15 ...	...	.....	5.5
	.....	13 ..		33.86	.....	.....	...	.....	...
	.....	20 ..		34.07	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
744*	.....	April 19	3	13 28 40.96	- 0.054	9 9 ...	...	+ 18.57	8.5
	.....	May 10	..	.....	.....	50.9	...	.....	8.5
	.....	22	3	41.74	.....	.....	...	.....	8.5
745	82 Urs. Maj.	May 22	..	13 33 55	.....	36 20 58.0	...	.....	...
746	.....S.P.	Dec. 17	..	13 35 40	.....	3 59 26.1	...	+ 18.33	...
747	84 Virginis o.....	April 24	..	13 35 49.60	+ 3.031	85 44 ...	...	.....	...
	.....	May 9	..	49.54	.....	.....	...	.....	6.5?
748	2065 Gr.	May 9	..	13 36 30	.....	1 42 41.1	...	+ 18.31	8.0
749	85 Virginis	May 19	..	13 37 50.32	+ 3.221	105 3 ...	...	.....	6.7
	.....	20	..	50.26	.....	.....	...	.....	...
750	τ Boötis.....	April 24	..	13 40 25.41	+ 2.886	71 49 ...	...	+ 18.16	...
	.....	May 19	..	25.22	.....	.....	...	.....	4.5
	.....	20	..	.....	.....	24.2	...	.....	...
751	η Urs. Maj.	May 9	..	13 41 51.85	+ 2.374*	39 58 ...	...	.....	...
	.....	20	..	51.76	.....	.....	...	.....	...
752*	.....	May 19	..	13 41 ...	+ 0.271	11 36 43.5	...	+ 18.10	...
	.....	22	..	.....	.....	51.1	...	.....	9.5
	.....	28	5	59.50	.....	.....	...	.....	...
753*	4628 B.A.C.	April 19	..	13 44 50	.....	54 37 7.8	...	+ 18.00	...
	.....	May 10	..	.....	.....	6.9	...	.....	...
	.....	28	..	.....	.....	7.6	...	.....	6.3
754	η Boötis.....	May 13	..	13 47 49.73	+ 2.858*	70 53 ...	...	.....	...
	.....	28	..	49.70	.....	.....	...	.....	...
755	.....	April 19	..	13 53 ...	+ 0.320	13 1 57.6	...	+ 17.63	8.5
	.....	May 19	..	.....	.....	57.1	...	.....	...
	.....	22	..	.....	.....	55.7	...	.....	8.3
	.....	28	5	49.09	.....	.....	...	.....	8.3
756*	A.Z. exciv. 22....	June 2	..	13 54 20	.....	16 1 56.6	...	+ 17.61	...
	.....	3	..	.....	.....	56.5	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
757	τ Virginis.....	May 20	..	13 54 20	.....	87 45 23.8	...	+ 17.61	...
758*	4682 B.A.C.	May 10	..	13 57 23.64	+ 3.255	105 39 ...	...	.....	7.3
	.....	13	..	23.59	.....	.....	...	.....	...
	.....	22	..	23.66	.....	.....	...	.....	7.0
759*	A. Z. cc. 131	April 19	..	13 58 9.55	+ 1.081	18 19 ...	...	.....	8.3
	.....	May 19	..	9.72	.....	.....	...	.....	8.3
760*	A. Z. cc. 132	May 28	..	13 59 10	.....	19 46 10.3	...	+ 17.41	10.3?
761	.....S.P.	Nov. 26	5	14 0 42.43	- 6.312	4 6 ...	...	.....	8.5
	.....	Dec. 1	3	42.62	.....	.....	...	.....	9.5
762*	96 Virginis	May 10	..	14 1 20.50	+ 3.187	99 39 ...	...	.....	6.7
	.....	June 3	..	20.67	.....	.....	...	.....	6.5
763*	A. Z. cciv. 79.....	May 10	..	14 1 ...	+ 1.478	22 58 18.5	...	+ 17.31	8.5
	.....	28	..	24.23	.....	.....	...	.....	7.7
	.....	June 5	..	.....	.....	18.0	...	.....	...
764*	A. Z. cciv. 78.....	May 28	5	14 1 44.05	+ 1.470	22 55 ...	...	.....	8.3
765*	A. Z. cciv. 80.....	May 19	..	14 2 ...	+ 1.368	21 44 58.0	...	+ 27.27	8.0
	.....	22	..	14.93	.....	.....	...	.....	9.0
766*	97 Virginis	May 10	..	14 4 53.22	+ 3.185	99 13 ...	...	.....	7.3
	.....	13	..	53.18	.....	.....	...	.....	...
	.....	June 3	..	53.40	.....	.....	...	.....	7.0
767	2099 Gr.	May 13	..	14 5 0	.....	3 33 11.9	...	+ 17.15	7.0
768	κ Virginis	April 19	..	14 5 13.21	+ 3.190	99 36 3.2	...	+ 17.14	...
769	4719 B.A.C.	May 22	..	14 6 41.59	+ 3.455	118 36 ...	...	+ 17.07	...
	.....	June 3	..	.....	.....	25.8	...	.....	7.3
	.....	5	..	41.68	.....	.....	...	.....	...
770*	26118 Lalande ...	May 28	..	14 8 19.81	+ 2.805	69 25 ...	...	.....	7.5
	.....	June 3	..	19.78	.....	.....	...	.....	6.7?

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h.	m.	s.		D.	R.		
771	Arcturus	May 10 ..	14	9	5.62	+2.734*	70	4	...	.....	...
		22 ..			5.67	.....	.....	...	.....	.....	...
772	4731 B.A.C.	April 19 ..	14	9	18.14	+ 2.817	70	24	...	+ 16.95	...
		May 13 ..			18.08	.....	.....	...	.....	6.3	6.5
		19 ..			18.16	.....	54.2	...	.....	...	...
		20 ..			18.13	.....	.....	...	.....	...	...
		28 ..			.....	.....	54.4	...	.....	6.7	6.7
773	ε Boötis	June 5 ..	14	11	5	.....	37	57	59.5	+ 16.87	...
774	λ Virginis	April 19 ..	14	11	19.60	+ 3.235	102	42	19.3	+ 16.85	...
775	51 Hydrae	June 5 ..	14	14	48.57	+ 3.452	117	5	...	.....	...
776	4769 B.A.C.	May 13 ..	14	16	50.74	+ 2.986	83	32	...	.....	7.3
		19 ..			50.59	.....	.....	...	.....	7.3	7.3
		20 ..			50.69	.....	.....	...	.....	7.3 ²	7.3 ²
777*	4776 B.A.C.	April 19 ..	14	17	29.29	+ 3.444	116	11	...	+ 16.55	...
		May 13 ..			.....	.....	46.8	...	.....	...	...
		June 3 ..			.....	.....	43.2	...	.....	7.3	7.3
778	4781 B.A.C.	June 2 ..	14	18	20	.....	116	12	21.8	+ 16.51	8.5
779	θ Boötis	May 28 ..	14	20	...	+ 2.070	37	28	53.8	+ 16.41	...
		June 5 ..			17.79	.....	55.9	...	.....	...	...
780	24 Boötis <i>g</i>	May 10 ..	14	23	37.38	+ 2.121	39	30	...	+ 16.24	6.0
		June 5 4			37.16	.....	.....	...	.....	...	...
		S.P. Dec. 15 ..			.....	.....	31.6	...	.....	...	...
781	ρ Boötis	May 20 ..	14	25	37.42	+ 2.595	59	0	...	.....	...
782	σ Boötis	May 10 ..	14	28	24.60	+ 2.599	59	38	...	.....	5.0
		19 ..			24.68	.....	.....	...	.....	...	...
		22 ..			24.67	.....	.....	...	.....	5.0	5.0
		28 ..			24.68	.....	.....	...	.....	5.0	5.0
783	4826 B.A.C.	May 28 ..	14	28	50	.....	36	28	1.8	+ 15.98	7.3
		June 3 ..			.....	.....	2.5	...	.....	7.5	7.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
784	.....	June 3 3		14 32 12.59	-21.367	1 56 ...	...	.....	8.7
785	33 Boötis	June 5 5		14 33 28.71	+ 2.241	44 58 ...	...	.....	...
786	4845 B.A.C. ....S.P.	Dec. 15 ..		14 33 40	.....	35 21 9.2	...	+ 15.71	...
787*	π Boötis (1st)	May 10 ..		14 33 57.64	+ 2.817	72 58 ...	...	.....	5.5
	.....	20 ..		57.67	.....	.....	...	.....	5.7?
788*	π Boötis (centre)	May 19 ..		14 33 58	.....	72 57 ...	42.1	+ 15.70	...
789*	π Boötis (2d)	May 19 ..		14 33 58.26	+ 2.817	72 58 ...	...	.....	6.0
	.....	22 ..		58.28	.....	.....	...	.....	6.0
790	4848 B.A.C.	June 2 ..		14 34 20	.....	101 37 0.2	...	+ 15.68	7.0
791	54 Hydræ (1st)...	May 19 ..		14 37 40.52	+ 3.464	114 50 ...	...	.....	5.0
792	54 Hydræ (2d) ...	June 3 ..		14 37 41	.....	114 49 48.9	...	+ 15.49	...
	.....	10 ..		.....	.....	49.9	...	.....	...
793	108 Virginis	June 5 ..		14 38 10	.....	88 40 20.4	...	+ 15.47	...
794	ϵ Boötis	May 10 ..		14 38 41.99	+2.619*	62 19 ...	...	.....	...
	.....	22 ..		42.01	.....	.....	...	.....	...
	.....	28 ..		41.75	.....	.....	...	.....	...
795	58 Hydræ	May 20 ..		14 41 50	.....	117 21 27.2	...	+ 15.26	...
	.....	28 ..		.....	.....	28.1	...	.....	...
796*	8 Libræ	May 10 ..		14 42 43.62	+ 3.312	105 24 ...	...	.....	6.3
	.....	28 ..		43.82	.....	.....	...	.....	...
797	α^2 Libræ	June 10 ..		14 42 55.19	+3.306*	105 26 ...	...	.....	...
798	ξ Boötis (1st)	June 2 ..		14 44 45	.....	70 17 52.6	...	+ 15.09	...
799	ξ Boötis (2d)	May 19 ..		14 44 ...	+ 2.756	70 17 ...	56.1	+ 15.09	...
	.....	22 ..		45.06	.....	.....	...	.....	...
800*	.....	May 10 5		14 45 3.17	+ 3.255	101 47 ...	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
801	4911 B.A.C.	May 19 ..		14 45 49.46	+ 3.538	117 46 ...	...	.....	...
802	4918 B.A.C.	June 3 ..		14 47 50	.....	30 7 9.1	...	+ 14.92	...
	.....	5 ..		.....	.....	7.7	...	.....	...
803*	4920 B.A.C.	June 10 ..		14 48 30	.....	115 41 54.8	...	+ 14.87	...
804	ξ ² Libræ	May 10 ..		14 48 57.63	+ 3.244	100 50 ...	...	.....	...
805	4923 B.A.C. (1st) .	May 22 5		14 49 3.32	+ 3.412	110 46 ...	...	.....	8.0
806	4923 B.A.C. (2d) ..	May 19 ..		14 49 3.98	+ 3.412	110 46 ...	...	.....	5.7
807	β Urs. Min.	May 22 ..		14 51 10	.....	15 15 ...	23.0	+ 14.75*	...
808*	.....	May 19 ..		14 55 4.58	+ 3.231	99 49 ...	...	+ 14.48	7.5
	.....	22 ..		4.61	.....	.....	...	.....	7.3
	.....	June 2 ..		.....	.....	18.2	...	.....	8.0
	.....	10 ..		.....	.....	16.8	...	.....	...
809	20 Libræ	June 25 ..		14 55 40	.....	114 42 44.9	...	+ 14.45	...
	.....	28 ..		.....	.....	45.2	...	.....	...
810	β Boötis	May 20 ..		14 56 30	.....	49 2 20.8	...	+ 14.40	...
	.....	June 5 ..		.....	.....	19.7	...	.....	...
811	2210 Gr.	May 28 3		14 58 18.10	-12.453	3 28 ...	...	.....	7.0
	.....S.P.	Nov. 29 3		17.12	.....	.....	...	.....	7.3
812	44 Boötis i (1st) .	May 10 ..		14 59 2.57	+ 2.108	41 47 ...	...	.....	...
813	44 Boötis i (2d) ..	June 3 ..		14 59 3	.....	41 46 57.1	...	+ 14.24	...
814	γ Urs. Min. ....S.P.	Nov. 27 ..		15 0 20	.....	17 40 19.4	...	+ 14.16	6.3
815	45 Boötis c.	June 27 ..		15 0 58.71	+ 2.620	64 34 4.5	...	+ 14.12	...
816	ε ¹ Libræ.	May 19 ..		15 4 1.22	+ 3.407	109 14 37.0	...	+ 13.93	{ 5.3 5.0?
	.....	20 ..		.....	.....	35.6	...	.....
	.....	22 ..		1.25	.....	.....	...	.....
	.....	June 3 ..		1.30	.....	.....	...	.....
	.....	17 ..		.....	.....	35.4	...	.....	...

No.	Star.	Date of Obs.	No. of Wires	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
817	2213 Gr.....	May 28	3	15 6 40.24	- 7.041	5 29 35.6	...	+ 13.77	{ 7.0 7.0 7.0 7.3
	.....	June 2	..	.....	.....	34.8	...	.....
	.....	17	5	41.20	.....	.....	...	.....
	..... S.P.	Dec. 16	3	40.11	.....	.....	...	.....
818	β Libræ.....	May 22	..	15 9 15.93	+ 3.217*	98 51 ..	...	.....	...
	.....	June 2	..	15.80	.....	.....	...	.....	...
819	δ Boötis.....	May 10	6	15 9 42.11	+ 2.411	56 8 ..	...	+ 13.57	...
	.....	19	..	42.10	.....	.....	...	.....	...
	.....	22	..	.....	.....	.....	46.6	.....	...
	.....	June 3	..	.....	.....	42.9	...	.....	...
	.....	25	..	.....	.....	42.4	...	.....	...
820	5 Serpentis.....	May 19	..	15 12 0	.....	87 41 12.3	...	+ 13.42	...
	.....	June 28	..	.....	.....	12.7	...	.....	...
821	.....	June 10	..	15 12 30	.....	5 24 58.7	...	+ 13.39	8.3
822	S Serpentis.....	May 22	..	15 14 55.31	+ 2.806	75 10 ..	...	.....	8.7
	.....	June 2	..	55.14	.....	.....	...	.....	8.7?
823	ϵ Libræ.....	June 2	..	15 16 25	.....	99 48 4.7	...	+ 13.13	...
824	η Cor. Bor.	June 25	..	15 17 15	.....	59 11 21.5	...	+ 13.07	...
	.....	July 2	..	.....	.....	21.2	...	.....	...
825	ζ^1 Libræ	May 19	4	15 20 8.55	+ 3.370	106 12 39.4	...	+ 12.88	...
	.....	22	..	8.51	.....	39.2	...	.....	{ 5.7? ...
	.....	June 2	..	8.64	.....	.....	...	.....
826	γ Urs. Min.....	June 27	..	15 21 0	.....	17 39 16.1	...	+ 12.82	...
	.....	28	..	.....	.....	14.1	...	.....	...
	..... S.P.	Dec. 1	..	.....	.....	10.9	...	.....	...
827	ι Draconis.....	May 20	5	15 21 44.31	+ 1.324	30 31 40.8	...	+ 12.77	...
	.....	June 17	..	.....	.....	41.5	...	.....	...
828	5116 B.A.C.....	May 28	..	15 25 ..	+ 1.045	27 13 31.7	...	+ 12.54	7.0
	.....	June 3	..	7.77	.....	30.8	...	.....	{ 6.0 7.3 ...
	.....	23	6	7.90	.....	.....	...	.....
	.....	25	..	.....	.....	31.6	...	.....

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
829	5117 B.A.C.	May 19 ..	15 25 21.97	+ 3.552	114 42 ...	...	...	...
	.....	28 ..	22.13	.....	.....	...	...	...
	.....	June 2 ..	22.22	.....	.....	...	...	...	7.5?
830	37 Libræ	May 19 ..	15 26 ...	+ 3.249	99 34 2.2	...	+ 12.46	...	
	.....	June 10 ..	18.82	.....	0.3	...	...	...
	.....	14 ..	18.50	.....	.....	...	...	...
831	δ Serpentis (1st)..	June 17 ..	15 27 55.51	+ 2.866	78 58 ...	...	+ 12.35	...	
	.....	28 ..	55.51	.....	.....	...	...	...
	.....	July 2 ..	.....	.....	41.9	...	...	...
832	δ Serpentis (2d)..	June 25 ..	15 27 55.66	+ 2.866	78 58 ...	...	+ 12.35	...	
	.....	27 ..	55.62	.....	.....	...	...	...
	.....	28 ..	.....	.....	36.7	...	...	...
	.....	July 1 ..	.....	.....	36.1	...	...	...
833	α Cor. Bor.	May 22 ..	15 28 ...	+ 2.537*	62 47 ...	53.5	+ 12.38*	...	
	.....	June 2 ..	35.48	.....	52.0	...	.....	...
	.....	3 ..	35.56	.....	.....	...	.....	...
	.....	10 ..	35.63	.....	.....	...	.....	...
834	5147 B.A.C.....S.P.	Dec. 1 ..	15 28 55	.....	25 18 24.5	...	+ 12.28	...	
835	τ ⁵ Serpentis	June 27 ..	15 29 ...	+ 2.755	73 24 8.1	...	+ 12.22	...	
	.....	July 1 ..	51.20	.....	.....	...	.....	...
836	41 Libræ	May 19 ..	15 30 37.46	+ 3.435	108 49 ...	...	+ 12.16	...	
	.....	June 14 ..	37.30	.....	.....	...	.....	...
	.....	25 ..	.....	.....	26.7	...	.....	...
837	κ Libræ	May 19 ..	15 33 39.31	+ 3.446	109 12 31.3	...	+ 11.95	...	
	.....	20 ..	.....	.....	30.1	...	.....	...
	.....	June 3 ..	39.41	.....	.....	...	.....	...
838	5177 B.A.C.	June 3 ..	15 33 ...	+ 1.909	42 43 32.9	...	+ 11.95	6.7	
	.....	28 ..	39.55	.....	.....	...	.....	...
	.....	July 1 ..	39.57	.....	.....	...	.....	...
	.....	5 ..	.....	.....	33.3	...	.....	...
	.....S.P.	Dec. 1 ..	.....	.....	31.5	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
839	5184 B.A.C.	May 28 ..		15 34 ..	+ 3.372	105 32 54.6	...	+ 11.88	7.5
	.....	June 25 ..		40.94	.....	.....	...	.....	6.7
840	5188 B.A.C.	June 10 ..		15 35 20.78	+ 3.353	104 35 ..	...	.....	6.7?
	.....	14 ..		20.56	.....	.....	...	.....	...
841*	θ Urs. Min.	June 2 ..		15 35 50	.....	12 10 20.5	...	+ 11.80	...
	..... S.P.	Jan. 14 ..		.....	.....	22.5	...	.....	...
842	ψ Serpentis	June 27 ..		15 36 47.59	+ 3.016	87 1 ..	...	.....	...
843	α Serpentis	May 19 ..		15 37 10.70	+ 2.950*	83 7 ..	...	+ 11.65*	...
	.....	June 2 ..		10.83	.....	.....	...	.....	...
	.....	3 ..		10.65	.....	.....	...	.....	...
	.....	10 ..		.....	.....	4.2	...	.....	...
	.....	17 6		10.56	.....	4.3	...	.....	...
	.....	July 2 ..		.....	.....	5.9	...	.....	...
844	5215 B.A.C.	May 20 ..		15 39 33.64	+ 3.662	118 20 ..	...	+ 11.53	...
	.....	June 3 ..		.....	.....	18.6	...	.....	8.5
	.....	10 ..		33.72	.....	.....	...	.....	...
845*	ι Scorpii b	June 2 ..		15 42 19.78	+ 3.593	115 18 ..	...	+ 11.34	...
	.....	3 ..		19.59	.....	.....	...	.....	...
	.....	10 ..		19.53	.....	.....	...	.....	...
	.....	14 ..		.....	.....	32.8	...	.....	...
	.....	25 ..		.....	.....	34.9	...	.....	...
	.....	July 1 ..		.....	.....	33.7	...	.....	...
846	ϵ Serpentis	June 27 ..		15 43 40	.....	85 5 10.4	...	+ 11.24	...
	.....	July 8 ..		.....	.....	8.2	...	.....	...
847	5249 B.A.C.	June 28 ..		15 44 29.04	+ 0.889	26 57 17.9	...	+ 11.18	6.0
	.....	July 1 ..		29.25	.....	.....	...	.....	...
	.....	5 ..		29.07	.....	17.5	...	.....	...
848	θ Libræ	May 20 ..		15 45 ..	+ 3.398	106 18 10.6	...	+ 11.10	...
	.....	June 10 ..		38.02	.....	7.9	...	.....	...
849	κ Cor. Bor.	June 2 ..		15 45 ..	+ 2.259	53 53 36.2	...	+ 11.09	...
	.....	27 ..		48.56	.....	.....	...	.....	...
	.....	July 10 ..		.....	.....	35.6	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
850	3 Scorpii	May 20 ..	15 46	1.19	+ 3.587	114 53	...	+ 11.07	...
	.....	July 2 ..	.....	.....	.....	36.0	...	.....	...
851	χ Herculis.....	June 3 ..	15 47	...	+ 2.032	47 8 34.8	...	+ 10.95	...
	.....	17 4	41.96	.....	.....	.....	...	.....	...
	.....	25 ..	41.94	.....	.....	.....	...	.....	...
852	ζ Urs. Min. S.P.	Jan. 14 ..	15 49	20	.....	11 45	...	+ 10.82	...
853	γ Serpentis.....	June 10 ..	15 49	48.46	+ 2.745	73 51	...	+ 10.79	...
	.....	25 ..	.....	.....	.....	55.7	...	.....	...
	.....	July 1 ..	.....	.....	.....	54.6	...	.....	...
854	.....	June 27 3	15 50	4.71	+ 10.624	4 42	...	.....	7.0
	..... S.P.	Dec. 27 5	4.77	.....	.....	.....	...	.....	6.7
	.....	31 3	4.08	.....	.....	.....	...	.....	...
855	π Scorpii.....	May 20 ..	15 50	8.90	+ 3.614	115 42	...	.....	...
	.....	June 2 ..	8.99	.....	.....	.....	...	.....	...
856	49 Libræ	June 10 ..	15 52	15.14	+ 3.400	106 6	...	+ 10.61	...
	.....	14 ..	14.84	.....	.....	18.5	...	.....	...
	.....	28 ..	.....	.....	.....	21.3	...	.....	...
857*	5312 B.A.C.	June 3 ..	15 54	...	+ 3.636	116 18 18.9	...	+ 10.44	8.0
	.....	25 ..	30.72	.....	.....	.....	...	.....	6.7
	.....	July 5 ..	30.90	.....	.....	17.9	...	.....	...
858	5 Herculis r	May 19 ..	15 54	...	+ 2.696	71 46 49.9	...	+ 10.42	...
	.....	June 27 ..	46.41	.....	.....	.....	...	.....	...
	.....	July 8 ..	.....	.....	.....	49.8	...	.....	...
859	51 Libræ (1st) ...	May 20 ..	15 56	27.29	+ 3.295	100 58 20.2	...	+ 10.30	...
	.....	June 14 ..	27.10	.....	.....	.....	...	.....	...
860	51 Libræ (3d)	June 28 ..	15 56	27.76	+ 3.295	100 58	...	.....	7.0?
861	β ¹ Scorpii.....	July 16 ..	15 57	5	.....	109 24 26.3	...	+ 10.27*	...
862*	17 Urs. Min.	June 27 ..	15 58	30	.....	14 0 55.8	...	+ 10.14	7.0
	.....	28 ..	.....	.....	.....	52.0	...	.....	...
	..... S.P.	Jan. 12 ..	.....	.....	.....	51.8	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
863	θ Draconis.....	July 1	..	15 59 ...	+ 1.153	31 2 55.7	...	+ 10.09	...
	.....	2	2	11.99	.....	57.0	...	.....	...
	.....	5	..	11.82	.....	.....	...	.....	...
	.....	9	..	.....	.....	58.2	...	.....	...
	.....	12	..	.....	.....	54.2	...	.....	...
864*	13 Scorpii c^2	May 19	..	16 3 ...	+ 3.681	117 32 51.2	...	+ 9.77	...
	.....	20	..	26.41	.....	.....	...	.....	...
	.....	June 14	..	26.17	.....	.....	...	.....	...
	.....	25	..	.....	.....	52.3	...	.....	...
	.....	July 9	..	26.54	.....	.....	...	.....	...
865	τ Cor. Bor.	June 27	5	16 3 42.53	+ 2.196	53 8 ...	...	+ 9.75	...
	.....	July 10	..	.....	.....	25.3	...	.....	...
866	ϕ Herculis.....	July 14	..	16 4 10	.....	44 41 6.5	...	+ 9.71	...
	.....S.P.	Jan. 14	..	.....	.....	5.3	...	.....	...
867	14 Herculis	July 5	..	16 5 45	.....	45 47 38.3	...	+ 9.59	...
868	.....	June 10	3	16 6 24.18	- 12.600	4 17 30.4	...	+ 9.54	{ ...
	.....	14	..	.....	.....	30.9	...	.....	7.3
	.....	28	3	22.85	.....	.....	...	.....	7.3
	.....	July 5	2	23.09	.....	.....	...	.....	...
869	49 Serpentis (1st)	May 19	..	16 6 35.70	+ 2.780	76 5 ...	...	.....	7.3
870	49 Serpentis (2d)	May 20	..	16 6 35.95	+ 2.780	76 5 ...	...	.....	7.3?
871	δ Ophiuchi	May 20	..	16 6 ...	+ 3.135*	93 19 13.6	...	+ 9.63*	...
	.....	June 14	..	48.13	.....	.....	...	.....	...
	.....	25	..	48.16	.....	.....	...	.....	...
	.....	27	..	48.23	.....	.....	...	.....	...
	.....	July 5	..	48.24	.....	.....	...	.....	...
	.....	16	..	.....	.....	12.2	...	.....	...
872*	ϵ Ophiuchi.....	June 3	..	16 10 ...	+ 3.162	94 20 14.8	...	+ 9.21	...
	.....	14	..	42.24	.....	.....	...	.....	...
	.....	25	..	42.29	.....	.....	...	.....	...
	.....	July 1	..	42.37	.....	16.1	...	.....	...
	.....	2	..	.....	.....	18.1	...	.....	...
	.....	18	..	.....	.....	17.4	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
873	σ Scorpii.....	May 19 ..	16	12 26.45	+ 3.634	115 14 32.0	...	+ 9.07	...
	.....	20 ..		26.56	.....	33.7	...	.....	...
	.....	July 5 4		26.47	.....	.....	...	.....	...
	.....	16 ..		.....	.....	32.4	...	.....	...
874	5453 B.A.C.	June 17 ..	16	13 ...	+ 0.290	23 15 56.2	...	+ 8.97	...
	.....	27 ..		46.30	.....	58.5	...	.....	7.5
	.....	28 ..		.....	.....	56.7	...	.....	7.3
	.....	July 2 ..		46.28	.....	.....	...	.....	7.7
875	19 Urs. Min.	June 14 5	16	14 59.58	- 1.824	13 45 43.8	...	+ 8.87	...
	.....S.P.	Jan. 14 ..		.....	.....	.....	42.6	.....	...
876	γ Herculis.....	June 17 ..	16	15 34.13	+ 2.647	70 30 ...	...	+ 8.83	...
	.....	28 ..		34.10	.....	.....	...	.....	...
	.....	July 1 ..		34.23	.....	.....	...	.....	...
	.....	10 ..		.....	.....	19.3	...	.....	...
877	5465 B.A.C.	May 19 ..	16	15 39.41	+ 3.679	116 49 ...	...	.....	...
878*	ψ Ophiuchi	July 14 ..	16	15 40	.....	109 41 47.4	...	+ 8.82	...
879	20 Urs. Min.	July 1 ..	16	16 10	.....	14 26 5.2	...	+ 8.78	...
880	5487 B.A.C.	May 20 ..	16	18 29.54	+ 3.740	118 57 ...	...	+ 8.60	...
	.....	June 25 ..		.....	.....	24.6	...	.....	7.3
	.....	July 14 ..		29.38	.....	.....	...	.....	...
881	Antares	May 20 ..	16	20 35.06	+ 3.666*	116 6 29.7	...	+ 8.46*	...
	.....	June 14 ..		.....	.....	26.9	...	.....	...
	.....	16 ..		34.94	.....	.....	...	.....	...
	.....	July 9 ..		35.07	.....	.....	...	.....	...
	.....	14 ..		35.06	.....	28.5	...	.....	...
882	η Urs. Min.	June 14 5	16	21 46.18	- 1.836	13 54 ...	...	+ 8.34	...
	.....	July 1 5		46.16	.....	.....	...	.....	...
	.....	2 ..		45.89	.....	55.9	...	.....	...
	.....	9 ..		.....	.....	56.0	...	.....	...
	.....	16 ..		.....	.....	54.1	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Mean N.P.D. 1856.		Precession in R.A.	Precession in N.P.D.	Mag.
				h.	m.	s.	D.	R.			
883	η Draconis	June 25 ..		16	22	2.80	+0.821*	28 9 ...	...	+ 8.23*	...
	.....	27 3				3.23	.....	.....	...	.....	...
	.....	28 3				2.94	.....	32.7	...	.....	...
884	β Herculis.....	July 10 ..		16	24	1.92	+ 2.583	68 11 ...	...	+ 8.15	...
	.....	18 ..				.....	.....	35.6	...	.....	...
	.....	25 ..				.....	.....	35.1	...	.....	...
885*	5527 B.A.C.	May 19 ..		16	24	...	+ 2.607	69 12 10.0	...	+ 8.14	...
	.....	July 1 ..				.....	.....	9.3	...	.....	...
	.....	16 ..				18.44	.....	.....	...	.....	...
886	τ Scorpii.....	May 20 ..		16	26	55.37	+ 3.722	117 54 ...	...	+ 7.92	...
	.....	June 25 ..				55.56	.....	43.8	...	.....	...
	.....	27 ..				.....	.....	48.5	...	.....	...
	.....	28 ..				55.60	.....	42.5	...	.....	...
	.....	July 9 ..				55.35	.....	.....	...	.....	...
	.....	14 ..				55.47	.....	47.1	...	.....	...
887	12 Ophiuchi	May 20 ..		16	28	...	+ 3.116	92 0 48.7	...	+ 7.77	...
	.....	June 17 ..				.....	.....	47.9	...	.....	...
	.....	July 10 ..				47.74	.....	.....	...	.....	...
	.....	15 ..				47.61	.....	.....	...	.....	5.5
	.....	16 ..				47.57	.....	.....	...	.....	5.5
888	5560 B.A.C.	June 14 ..		16	30	23.73	+ 0.830	28 52 26.9	...	+ 7.64	...
	.....	July 9 ..				.....	.....	26.5	...	.....	...
	.....	14 5				23.97	.....	.....	...	.....	6.0
	.....	15 ..				.....	.....	26.5	...	.....	...
	.....	18 ..				.....	.....	25.9	...	.....	...
	.....S.P.	Jan. 14 ..				.....	.....	26.2	...	.....	...
889	5579 B.A.C.	June 17 ..		16	33	...	+ 3.463	107 27 34.1	...	+ 7.41	...
	.....	25 ..				14.76	.....	.....	...	.....	5.5?
	.....	27 ..				.....	.....	36.6	...	.....	...
	.....	28 ..				.....	.....	35.7	...	.....	...
890*	38 Herculis	May 20 ..		16	34	23.54	+ 2.959	84 51 ...	...	.....	7.0?
	.....	July 14 ..				23.32	.....	.....	...	.....	6.7?

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
891	5595 B.A.C.	July 15 ..	16 34	58.27	+ 3.694	116 32	...	.....	6.7
	.....	16 ..		58.35	.....	.....	...	.....	...
892	ζ Herculis	June 14 ..	16 35	51.59	+ 2.262*	58 8	...	.....	...
893	15 Ophiuchi	June 25 ..	16 36	...	+ 3.600	112 54 42.2	...	+ 7.15	...
	.....	28 ..		29.34	.....	.....	...	.....	...
894*	5611 B.A.C.	July 10 ..	16 36	53.70	- 2.675	12 16 12.3	...	+ 7.11	...
	.....	25 ..		.....	.....	12.1	...	.....	...
895	η Herculis	June 14 ..	16 37	57.63	+ 2.050	50 48	...	.....	...
	.....	25 ..		57.56	.....	.....	...	.....	...
	.....	27 ..		57.73	.....	.....	...	.....	...
896	41 Herculis	July 16 ..	16 37	59.01	+ 2.932	83 37	...	+ 7.02	6.7
	.....	25 ..		59.34	.....	.....	...	.....	...
	.....	26 ..		.....	.....	54.3	...	.....	...
897	25 Scorpii	May 20 ..	16 38	...	+ 3.663	115 15 43.1	...	+ 7.02	...
	.....	July 9 ..		2.74	.....	.....	...	.....	...
	.....	14 ..		2.64	.....	40.3	...	.....	6.5? ...
898	ε Scorpii	July 14 ..	16 40	50.83	+ 3.921	124 2	...	.....	...
	.....	15 ..		50.86	.....	.....	...	.....	...
	.....	16 5		50.65	.....	.....	...	.....	...
899	5658 B.A.C.	June 25 ..	16 43	54.35	+ 1.221	34 19	...	+ 6.54	7.0
	.....	July 10 ..		54.22	.....	.....	...	.....	...
	.....	25 ..		.....	.....	58.5	...	.....	...
	..... S.P.	Jan. 14 ..		.....	.....	62.3	...	.....	...
900*	5673 B.A.C. ...	June 25 ..	16 45	...	+ 3.678	115 35 9.4	...	+ 6.41	7.5
	.....	28 ..		30.62	.....	8.0	...	.....	6.7 7.3
	.....	July 16 ..		.....	.....	12.8	...	.....	...
901*	.....	July 14 ..	16 45	41.74	+ 3.677	115 31	...	.....	8.0
	.....	15 ..		41.69	.....	.....	...	.....	8.3?
902	κ Ophiuchi	June 28 ..	16 50	51.24	+ 2.856	80 23	...	+ 5.96	...
	.....	July 2 ..		51.19	.....	.....	...	.....	...
	.....	10 ..		51.26	.....	.....	...	.....	...
	.....	28 ..		.....	.....	50.7	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
903	5709 B.A.C.	July 18 ..	1	16 51 9.23	+ 3.664	114 52 6.5	...	+ 5.93	{ 6.0
		Aug. 1 ..		.....	.....	9.6	...	.....
904*	Weisse xvi. 962...	May 20 ..		16 51 11.22	+ 3.666	102 58 ...	...	.....	9.0?
905	5720 B.A.C.	July 29 ..		16 53 4.16	+ 3.375	103 20 ...	...	.....	...
906*	ε Herculis.....	May 20 ..		16 54 ...	+ 2.296	58 51 29.5	...	+ 5.63	...
		June 17 ..		.....	.....	27.8	...	.....	...
		July 2 ..		46.86	.....	.....	...	.....	...
		9 5		46.86	.....	.....	...	.....	...
		10 6		46.86	.....	.....	...	.....	...
907	19 Draconis h ¹ ...	July 1 ..		16 55 ...	+ 0.273	24 38 42.3	...	+ 5.59	...
		18 ..		14.62	.....	.....	...	.....	5.3
		25 ..		.....	.....	40.8	...	.....	...
		31 ..		.....	.....	40.9	...	.....	...
		S.P. Jan. 10 ..		.....	.....	42.0	...	.....	...
908	31 Ophiuchi	June 28 6		16 55 52.52	+ 3.683	115 26 ...	...	.....	6.5
909	5752 B.A.C.	July 16 ..		16 56 ...	+ 1.098	33 5 55.5	...	+ 5.47	...
		29 ..		43.20	.....	.....	...	.....	...
		30 ..		.....	.....	54.2	...	.....	...
		Aug. 4 ..		.....	.....	55.5	...	.....	...
910	61 Herculis c	July 2 5		16 58 20.17	+ 2.148	54 22 ...	...	+ 5.33	{ 6.3
		14 ..		20.14	.....	46.6	...	.....
911	ε Urs. Min.	May 20 5		17 0 53.03	-6.503*	7 43 ...	...	+ 5.12*	...
		June 28 3		53 37	.....	60.1	...	.....	...
		July 15 4		52.53	.....	.....	...	.....	...
		25 4		52.39	.....	.....	...	.....	...
		26 ..		.....	.....	58.1	...	.....	...
		S.P. Jan. 14 ..		.....	.....	58.5	...	.....	...
912	η Ophiuchi.....	June 23 ..		17 2 7.39	+ 3.432	105 32 ...	...	+ 5.01	...
		25 ..		7.41	.....	32.6	...	.....	...
		July 9 ..		7.41	.....	33.1	...	.....	...
		26 ..		7.31	.....	.....	...	.....	...
		28 ..		.....	.....	32.6	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
913	5797 B.A.C.	July 18 ..	17	4 50.87	+ 0.956	31 32 31.2	...	+ 4.78	6.7
	.....	25 ..	.....	.....	.....	31.4	...	.....	7.0
	.....								7.3
914	63 Hercules	July 14 ..	17	5 5.53	+ 2.482	65 34 ...	...	+ 4.74	6.0
	.....	29 ..	.....	.....	.....	59.3	...	.....	...
	.....	Aug. 1 ..	.....	.....	.....	59.0	...	.....	7.0
915	5800 B.A.C.	June 28 ..	17	5 16.28	+ 3.729	116 48 ...	...	+ 4.75	6.5
	.....	July 8 ..	.....	16.53	.....	.....	...	.....	...
	.....	14 ..	.....	.....	.....	26.2	...	.....	...
916*	31308 Lalande ...	June 23 ..	17	5 19.42	+ 2.482	65 34 ...	...	.....	6.7?
917	36 Ophiuchi (1st)	May 20 ..	17	6 29.73	+ 3.717	116 23 13.7	...	+ 4.64	5.0
	.....	July 15 ..	.....	29.69	.....	.....	...	.....	...
	.....	30 ..	.....	.....	.....	16.4	...	.....	...
	.....	Aug. 11 ..	.....	.....	.....	13.1	...	.....	...
918	36 Ophiuchi (2d).	June 17 ..	17	6 30.07	+ 3.717	116 23 8.4	...	+ 4.58	...
	.....	July 9 ..	.....	30.14	.....	.....	...	.....	...
	.....	26 ..	.....	.....	.....	9.5	...	.....	...
	.....	Aug. 2 ..	.....	.....	.....	9.0	...	.....	...
919	.....	June 25 3	17	7 8.57	- 11.491	5 6 ...	...	+ 4.59	7.7
	.....	July 1 5	.....	8.56	.....	.....	...	.....	8.0
	.....	2 3	.....	8.58	.....	.....	...	.....	...
	.....	15 ..	.....	.....	.....	25.0	...	.....	8.3
	.....	26 3	.....	8.62	.....	.....	...	.....	8.3
	.....S.P.	Dec. 29 3	.....	7.81	.....	.....	...	.....	8.0
920	5815 B.A.C.	June 28 6	17	7 36.39	+ 3.683	115 8 ...	...	.....	...
	.....	July 8 ..	.....	36.49	.....	.....	...	.....	...
921	α Hercules (1st) ..	Aug. 1 ..	17	8 4.97	+ 2.731*	75 27 ...	...	.....	...
922	α Hercules (2d)...	July 29 ..	17	8 5.45	+ 2.731*	75 26 ...	...	+ 4.46	...
	.....	Aug. 4 ..	.....	.....	.....	34.5	...	.....	...
923	ζ Draconis.....	June 28 ..	17	8 ...	+ 0.159	24 6 29.1	...	+ 4.48	...
	.....	July 1 ..	.....	.....	.....	29.9	...	.....	...
	.....	30 ..	.....	22.71	.....	.....	...	.....	...
	.....S.P.	Jan. 25 ..	.....	.....	.....	29.4	...	.....	...
	.....	31 ..	.....	.....	.....	27.5	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
924	5831 B.A.C.	July 9	..	17 9 19.82	+ 3.651	113 55 ...	...	.....	...
925	ξ Ophiuchi	June 20	..	17 12 22.68	+ 3.573	110 57 ...	...	+ 4.14	...
	.....	23	4	22.51	.....	.....	...	.....	...
	.....	July 28	..	.....	.....	14.7	...	.....	...
926	69 Herculis <i>e</i>	June 27	..	17 12 42.32	+ 2.069	52 33 ...	...	+ 4.11	...
	.....	28	..	42.51	.....	.....	...	.....	...
	.....	July 2	..	.....	.....	18.2	...	.....	...
927	5846 B.A.C.	July 16	..	17 12 51.95	+ 3.676	114 45 ...	...	+ 4.10	6.7
	.....	Aug. 1	..	51.88	.....	20.6	...	.....	...
	.....	5	..	.....	.....	20.5	...	.....	...
928	5853 B.A.C.	July 8	..	17 13 8.88	+ 1.520	40 9 ...	...	.....	6.5
	.....	18	..	8.86	.....	.....	...	.....	7.0
929	θ Ophiuchi	May 20	..	17 13 10.03	+ 3.679	114 51 4.6	...	+ 4.07	...
	.....	June 25	..	.....	.....	0.7	...	.....	...
	.....	July 14	..	10.23	.....	2.2	...	.....	...
	.....	15	..	10.26	.....	5.4	...	.....	...
	.....	18	..	.....	.....	2.8	...	.....	...
	.....	29	..	.....	.....	3.7	...	.....	...
	.....	Aug. 11	..	.....	.....	1.2	...	.....	...
930	5858 B.A.C.	July 26	..	17 14 18.81	+ 3.682	114 57 13.9	...	+ 3.97	{ 7.5?
	.....	30	..	.....	.....	15.1	...	.....	{ ...
931	72 Herculis <i>w</i>	July 29	..	17 15 16.52	+ 2.231	57 21 ...	...	.....	...
932	5873 B.A.C.	May 20	..	17 17 4.47	+ 3.755	117 28 ...	...	.....	...
	.....	June 20	..	4.47	.....	.....	...	.....	...
933	5875 B.A.C.	July 18	..	17 17 10.82	+ 3.779	118 17 ...	...	.....	7.3
	.....	30	..	10.83	.....	.....	...	.....	...
	.....	Aug. 1	..	10.93	.....	.....	...	.....	...
934	73 Herculis	June 23	5	17 18 5.16	+ 2.511	66 54 ...	...	.....	...
	.....	July 2	..	5.29	.....	.....	...	.....	...
	.....	25	..	5.10	.....	.....	...	.....	6.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Preces- sion in R.A.	Mean S.P.D. 1856.			Preces- sion in S.P.D.	Mag.
				h.	m.	s.		D.	R.			
935	45 Ophiuchi <i>d</i>	July 14 ..	17 18	9.78	+	3.823	119 43	56.0	...	+	3.64	...
	.....	.....	15 ..	9.84	.....	.....	55.5	...	.....	.....	...
	.....	Aug. 7 ..	.....	.....	.....	.....	55.0	...	.....	.....	...
936	5884 B.A.C.	July 26 ..	17 18	26.87	+	3.819	119 35	+	3.62	...
	.....	Aug. 2 ..	.....	27.02	.....	.....	40.4	...	.....	.....	7.0?
	.....	.....	4 ..	.....	.....	.....	41.6	...	.....	.....	6.7
937	5895 B.A.C.	June 28 ..	17 19	...	+	2.077	52 55	2.4	...	+	3.53	6.5
	.....	July 1 ..	.....	.....	.....	.....	2.7	...	.....	.....	...
	.....	.....	29 ..	27.94	.....	.....	.....	...	.....	.....	6.5
	.....	Aug. 4 ..	.....	28.01	.....	.....	.....	...	.....	.....	6.3
938	5896 B.A.C.	June 20 5	17 19	45.87	+	3.697	115 23
	Aug. 5 5	45.81
939	.....	July 8 3	17 19	53.78	-107.474	0 41	...	...	+	3.49	8.5
	.....	.....	14 2	52.71	.....	.....	...	...	.....	.....	8.5
	.....	.....	15 3	53.12	.....	.....	...	...	.....	.....	...
	.....	.....	18 3	53.38	.....	.....	...	...	.....	.....	8.3
	.....	.....	25 3	53.02	.....	.....	40.1	...	.....	.....	8.3
	..... S.P.	Jan. 12 3	.....	53.38	.....	.....	.....	...	.....	.....	9.0
	.....	.....	14 2	52.26	.....	.....	.....	...	.....	.....	8.5
	.....	.....	15 2	53.76	.....	.....	.....	...	.....	.....	...
940	β Draconis	June 20 ..	17 27	11.01	+	1.350*	37 35	+	2.86*	...
	.....	July 9 ..	.....	10.71	.....	.....	.....	...	.....	.....	...
	.....	.....	15 ..	10.69	.....	.....	.....	...	.....	.....	...
	.....	.....	18 ..	.....	.....	.....	24.8	...	.....	.....	...
	.....	Aug. 2 ..	.....	.....	.....	.....	25.9	...	.....	.....	...
	.....	.....	4 ..	.....	.....	.....	24.5	...	.....	.....	...
	.....	.....	5 ..	.....	.....	.....	25.6	...	.....	.....	...
941	α Ophiuchi	June 23 ..	17 28	15.20	+	2.779*	77 19	+	2.98*	...
	.....	.....	28 ..	15.13	.....	.....	.....	...	.....	.....	...
	.....	July 1 ..	.....	15.05	.....	.....	.....	...	.....	.....	...
	.....	.....	2 ..	15.15	.....	.....	.....	...	.....	.....	...
	.....	.....	8 ..	15.13	.....	.....	.....	...	.....	.....	...
	.....	.....	9 ..	.....	.....	.....	52.2	...	.....	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.	
						D.	R.			
				h. m. s.	s.	° ' "	"	"		
942	ν^1 Draconis	June 25 ..	17 29 ...	+	1.159	34 42 57.7	...	+	2.68	...
	.....	July 1 ..	.....	.....	.....	58.4	...	.....	.....	...
	.....	14 ..	20.45	.....	.....	.....	...	.....	5.0	...
	.....	16 ..	20.42	.....	.....	.....	...	.....	...	...
	.....	17 ..	20.53	.....	.....	.....	...	.....	...	...
	.....	26 ..	.....	.....	.....	57.9	...	.....	...	...
943	ν^2 Draconis	July 2 ..	17 29 ...	+	1.160	34 43 38.8	...	+	2.67	...
	.....	14 ..	25.75	...	.....	.....	...	.....	5.0	...
	.....	15 ..	.....	.....	.....	39.5	...	.....	...	...
	.....	16 ..	25.87	.....	.....	.....	...	.....	...	...
	.....	25 ..	25.73	.....	.....	38.8	...	.....	...	...
944	27 Draconis <i>f</i>	June 16 ..	17 32 ...	-	0.252	21 46 24.3	...	+	2.40	...
	.....	20 ..	33.19	.....	.....	.....	...	.....	...	...
	.....	July 1 5	33.06	.....	.....	.....	...	.....	...	...
	.....	2 5	32.78	.....	.....	.....	...	.....	...	...
	.....	8 5	32.84	.....	.....	.....	...	.....	...	...
	.....S.P.	Jan. 25 ..	.....	.....	.....	26.9	...	.....	...	...

945	26 Draconis	July 15 5	17 33 30.29	+	0.575	28 0 ...	...	+	2.31	5.7
	.....	17 ..	.....	.....	.....	54.8	...	.....	...	...
	.....	25 5	30.47	.....	.....	.....	...	.....	5.7	...
	.....	26 ..	30.50	.....	.....	.....	...	.....	...	...
	.....	Aug. 1 ..	.....	.....	.....	53.9	...	.....	...	...
	.....	5 ..	.....	.....	.....	54.5	...	.....	6.3	...
946	ϵ Herculis	Aug. 4 ..	17 35 25	.....	.....	43 54 54.7	...	+	2.15	...
947*	5994 B.A.C.	July 17 ..	17 35 48.34	+	2.462	65 21 ...	...	.....	7.5	...
948	β Ophiuchi.	June 16 ..	17 36 21.67	+	2.964	85 22 ...	...	+	2.07	...
	.....	July 18 ..	.....	.....	.....	7.1	...	.....	...	...
949*	29 Draconis	June 25 ..	17 36 ...	-	1.665	15 41 8.9	...	+	2.04	7.3
	.....	July 14 5	40.17	.....	.....	.....	...	.....	7.0	...
	.....	15 ..	.....	.....	.....	10.5	...	.....	7.0	...
	.....	Aug. 2 5	40.36	.....	.....	.....	...	.....	6.5	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.		Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h. m. s.	s.		D.	R.		
950	July 16	3	17 36 50.93	-11.343	5 16 ...	...	+	2.03	7.5
	26	..	.....	.....	22.5	...	.....	.....	7.5
	30	5	51.44	.....	23.0	...	.....	.....	7.0
	Aug. 1	4	52.06	.....	.....	...	.....	.....	7.3
	2	4	51.90	.....	.....	...	.....	.....	7.0
	4	4	52.43	.....	.....	...	.....	.....	7.0
	5	5	51.63	.....	.....	...	.....	.....	7.3
	6	3	50.67	.....	.....	...	.....	.....	7.3
	.....S.P.	Jan. 10	3	51.18	.....	.....	...	.....	.....	7.0
	25	5	51.45	.....	.....	...	.....	.....	7.3
	28	5	52.19	.....	.....	...	.....	.....	...
	Dec. 13	4	50.87	.....	.....	...	.....	.....	...
951	84 Herculis	June 20	..	17 37 27.06	+ 2.468	65 36 ...	...	+	1.97	...
	July 2	..	.....	.....	23.6	...	.....	.....	...
	9	..	.....	.....	21.8	...	.....	.....	...
	25	..	27.02	.....	.....	...	.....	.....	...
	Aug. 4	..	27.00	.....	.....	...	.....	.....	5.7
952	ω Draconis	Aug. 1	5	17 37 48.08	- 0.364	21 11 ...	...	.....	.....	...
953	3 Sagittarii	July 25	..	17 38 ...	+ 3.772	117 46 13.1	...	+	1.88	...
	26	..	29.92	.....	.....	...	.....	.....	...
	Aug. 13	..	.....	.....	14.4	...	.....	.....	...
954	μ Herculis	July 1	..	17 40 ...	+ 2.369	62 11 33.6	...	+	1.68	...
	2	..	49.45	.....	.....	...	.....	.....	...
	14	..	.....	.....	.....	27.8	.....	.....	...
	16	..	.....	.....	.....	29.6	.....	.....	...
	Aug. 1	..	.....	.....	33.1	...	.....	.....	...
	7	..	.....	.....	31.7	...	.....	.....	...

955	6030 B.A.C.	June 20	..	17 42 32.71	+ 2.605	70 41 ...	...	+	1.53	6.0?
	July 17	..	32.63	.....	.....	...	.....	.....	6.0?
	26	..	32.57	.....	.....	...	.....	.....	6.3
	Aug. 4	..	.....	.....	41.8	...	.....	.....	...
	6	..	.....	.....	41.8	...	.....	.....	6.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
956	87 Herculis	June 16 ..	17 42	58.73	+ 2.431	64 19 ...	...	+ 1.49	...
	.....	17 ..		58.89	.....	.....	...	.....	...
	.....	July 8 ..		58.93	.....	.....	...	.....	5.5
	.....	17 ..		.....	.....	32.7	...	.....	...
	.....	29 ..		.....	.....	33.3	...	.....	...
	.....	Aug. 5 ..		.....	.....	34.3	...	.....	6.0
957	ψ^1 Draconis (1st)	Aug. 6 4	17 44	30.58	- 1.088	17 46 ...	...	+ 1.36	4.3
	.....	13 5		30.40	.....	.....	...	.....	...
	.....S.P.	Jan. 31 ..		.....	.....	54.4	...	.....	...
958	ψ^1 Draconis (2d)	June 17 ..	17 44	...	- 1.090	17 46 24.9	...	+ 1.35	...
	.....	Aug. 6 3		32.07	.....	.....	...	.....	6.0
	.....S.P.	Jan. 31 ..		.....	.....	23.8	...	.....	...
959	30 Draconis.....	June 16 ..	17 45	...	+ 1.435	39 10 55.6	...	+ 1.26	...
	.....	July 15 ..		37.82	.....	.....	...	.....	5.5
	.....	29 ..		38.12	.....	.....	...	.....	...
	.....	30 ..		37.88	.....	.....	...	.....	5.3
960	63 Ophiuchi	June 20 ..	17 46	2.57	+ 3.690	114 51 ...	...	+ 1.22	...
	.....	July 14 ..		2.39	.....	.....	...	.....	6.7
	.....	26 ..		2.43	.....	.....	...	.....	7.0?
	.....	Aug. 1 ..		.....	.....	13.2	...	.....	6.7
	.....	2 ..		.....	.....	13.3	...	.....	6.5
961*	6059 B.A.C.	July 15 ..	17 47	25	.....	116 44 30.2	...	+ 1.10	...
	.....	30 ..		.....	.....	31.0	...	.....	...
962	6064 B.A.C.	July 8 ..	17 47	41.50	+ 3.609	111 55 ...	...	+ 1.08	6.3
	.....	Aug. 1 ..		41.42	.....	.....	...	.....	7.0
	.....	2 ..		41.38	.....	.....	...	.....	7.0?
	.....	6 ..		.....	.....	35.8	...	.....	7.0
963	6065 B.A.C.	June 16 ..	17 48	2.04	+ 3.449	105 46 ...	...	+ 1.05	...
	.....	July 17 ..		2.30	.....	.....	...	.....	6.7?
	.....	Aug. 4 ..		2.07	.....	.....	...	.....	6.0
	.....	7 ..		.....	.....	59.6	...	.....	...
	.....	13 ..		.....	.....	57.4	...	.....	...
964	4 Sagittarii	July 17 ..	17 51	0	.....	113 47 53.6	...	+ 0.79	...
	.....	25 ..		.....	.....	51.3	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
				h.	m.	s.		D.	R.		
965	ξ Draconis.....	July 29 ..	17 51	2.45	+ 1.023	33 6 ...	...	+ 0.79	...	
	.....	30 ..		2.46	.....	.....	...	.....	...
	.....	Aug. 2 ..		2 33	.....	.....	...	.....	...
	.....	5 ..		2.65	.....	.....	...	.....	...
	..... S.P.	Jan. 25 ..		.....	.....	12.7	...	.....	...
966	ν Ophiuchi.....	July 1 ..	17 51	6.04	+ 3.301	99 45 ...	...	+ 0.78	...	
	.....	14 ..		6.13	.....	.....	...	.....	...
	.....	29 ..		.....	.....	6.0	...	.....	...
	.....	Aug. 1 ..		.....	.....	7.6	...	.....	...
	.....	5 ..		.....	.....	5.5	...	.....	...
967	5 Sagittarii.....	July 8 ..	17 51	22.07	+ 3.674	114 16 ...	...	.....	6.5?
	.....	25 ..		22.03	.....	.....	...	.....	6.7
	.....	Aug. 4 ..		21.97	.....	.....	...	.....	7.3
968	ξ Herculis.....	July 16 ..	17 52	...	+ 2.323	60 43 ...	58.7	+ 0.68	...		
	.....	17 ..		10.17	.....	.....	...	.....	...
	.....	26 ..		10.40	.....	.....	...	.....	...
	.....	Aug. 6 ..		10.17	.....	.....	...	.....	...
969	ζ Serpentis.....	July 18 6	17 52	52.72	+ 3.157	93 41 ...	...	.....	...
	.....	Aug. 1 ..		52.67	.....	.....	...	.....	...
	.....	13 ..		52.65	.....	.....	...	.....	...
970	γ Draconis.....	June 16 ..	17 53	16.01	+ 1.392*	38 29 ...	...	+ 0.63*	...	
	.....	17 ..		15.97	.....	.....	...	.....	...
	.....	20 ..		15.82	.....	.....	...	.....	...
	.....	Aug. 4 ..		.....	.....	33.0	...	.....	...
971	35 Draconis.....	July 14 5	17 55	54.07	- 2.709	13 1 ...	16.9	+ 0.36	...		
	.....	29 5		54.00	.....	.....	...	.....	...
	.....	30 5		53.88	.....	.....	...	.....	...
	.....	Aug. 5 5		54.09	.....	.....	...	.....	5.0
972*	6108 B.A.C.	June 16 ..	17 55	55	.....	115 36 24.7	...	+ 0.36	...	
	.....	Aug. 2 ..		.....	.....	24.7	...	.....	7.5
	.....	6 ..		.....	.....	24.4	...	.....	7.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
973*	ψ^2 Draconis	July 15	5	17 57 40.92	— 1.048	17 58 ...	...	+ 0.20	6.0
	.....	16	5	40.70	.....	.....	...	.....	5.7
	.....	25	..	40.90	.....	.....	...	.....	5.5
	.....	30	..	.....	.....	57.7	...	.....	...
	.....	Aug. 5	..	.....	.....	58.9	...	.....	6.5
	.....	14	..	.....	.....	58.4	...	.....	...
974	γ^0 Ophiuchi (1st)	Aug. 13	..	17 58 10.72	+ 3.012	87 28 ...	...	.....	...
975	γ^0 Ophiuchi (2d)	Aug. 4	..	17 58 11.17	+ 3.012	87 27 ...	...	+ 0.16	6.0?
	.....	6	..	11.26	.....	.....	...	.....	6.0
	.....	7	..	.....	.....	50.2	...	.....	...
	.....	13	..	.....	.....	48.6	...	.....	...
976	δ_{124} B.A.C.	June 16	..	17 58 16.73	+ 3.267	98 20 ...	...	.....	...
	.....	17	..	16.90	.....	.....	...	.....	...
	.....	20	..	16.73	.....	.....	...	.....	...
977*	δ_{132} B.A.C.	Aug. 1	..	17 59 59.85	+ 3.709	115 29 ...	...	.....	7.5?
	.....	2	..	59.91	.....	.....	...	.....	7.0?
978	δ_{138} B.A.C.	July 17	..	18 0 ...	+ 3.727	116 7 12.4	...	— 0.03	...
	.....	25	..	.....	.....	12.7	...	.....	...
	.....	26	..	18.56	.....	.....	...	.....	...
	.....	29	..	18.59	.....	.....	...	.....	7.5?
	.....	30	..	18.65	.....	.....	...	.....	...
	.....	Aug. 1	..	.....	.....	15.7	...	.....	...
979	ι^0 Herc. (south)	July 14	..	18 2 1.15	+ 2.417	63 55 ...	...	— 0.18	5.7
	.....	29	..	.....	.....	15.8	...	.....	...
980	ι^0 Herc. (north)	June 20	..	18 2 1.40	+ 2.417	63 55 ...	...	— 0.18	...
	.....	July 15	..	.....	.....	0.2	...	.....	...
981	μ^1 Sagittarii	July 16	..	18 5 ...	+ 3.584*	111 5 30.3	...	— 0.45*	...
	.....	18	..	9.38	.....	29.9	...	.....	...
	.....	25	..	9.32	.....	.....	...	.....	...
	.....	Aug. 5	..	.....	.....	30.2	...	.....	...
	.....	13	..	9.26	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
982*	6199 B.A.C.	July 8 ..	18	9 47.28	+ 3.713	115 39 ...	...	...	...
	.....	25 ..		47.16	.....	.....	...	.....	7.0
	.....	Aug. 5 ..		47.16	.....	.....	...	.....	7.0
	.....	6 ..		47.20	.....	.....	...	.....	7.0
983*	6201 B.A.C. (1st) .	July 15 ..	18	10 ...	+ 3.523	108 40 12.6	...	— 0.90	7.3
	.....	17 ..		.....	.....	12.4	...	.....	...
	.....	26 ..		16.03	.....	.....	...	.....	7.3?
	.....	Aug. 1 ..		16.01	.....	.....	...	.....	7.0
	.....	4 ..		15.87	.....	.....	...	.....	7.3
984*	6201 B.A.C. (2d) ..	July 29 ..	18	10 16.97	+ 3.523	108 40 2.4	...	+ 0.90	{ 8.0
	.....	30 ..		16.70	.....	2.6	...	.....	{ 8.0
	.....	Aug. 2 ..		17.06	.....	.....	...	.....	{ 8.3
									8.0
985*	40 Draconis	Aug. 13 ..	18	10 50	.....	10 1 25.7	...	— 0.95	...
986*	41 Draconis	July 14 ..	18	10 55	.....	10 1 ...	13.4	— 0.96	...
	.....	26 ..		.....	.....	.....	12.8	.....	...
	.....	Aug. 1 ..		.....	.....	12.9	...	.....	...
987*	6213 B.A.C.	Aug. 5 ..	18	12 10	.....	82 47 41.1	...	— 1.07	6.0
988	36 Draconis	Aug. 13 ..	18	13 4.01	+ 0.292	25 39 ...	...	— 1.14	...
	.....	14 5		3.78	.....	5.7	...	.....	...
	.....S.P.	Feb. 12 ..		.....	.....	4.8	...	.....	...
989	7 Serpentis	July 8 ..	18	13 51.60	+ 3.140	92 55 ...	...	— 1.21	...
	.....	18 ..		51.69	.....	.....	...	.....	...
	.....	Aug. 4 ..		.....	.....	56.1	...	.....	...
990	ε Sagittarii	July 17 ..	18	14 36.98	+ 3.987	124 27 ...	...	.....	...
	.....	26 ..		37.02	.....	.....	...	.....	...
	.....	30 ..		37.04	.....	.....	...	.....	...
991	108 Herculis	July 25 5	18	15 24.41	+ 2.308	60 12 ...	...	.....	...
	.....	Aug. 1 ..		24.49	.....	.....	...	.....	5.7
	.....	4 ..		24.42	.....	.....	...	.....	5.3
992*	6245 B.A.C.	July 16 ..	18	16 25	.....	72 14 32.6	...	— 1.44	...
	.....	Aug. 2 ..		.....	.....	33.8	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
993	109 Herculis	July 25 ..		18 17 35	.....	68 17 ...	33.3	— 1.54	...
994*	38 Draconis	July 29 ..		18 17 49.34	— 0.345	21 18 ...	...	— 1.56	6.3
	.....	Aug. 2 ..		49.36	.....	.....	...	.....	6.3
	.....	6 ..		49.11	.....	.....	...	.....	6.7
	.....S.P.	Jan. 30 ..		.....	.....	59.1	...	.....	...
995	.....	Aug. 13 ..		18 17 50	.....	4 19 51.8	...	— 1.56	7.7
996	λ Sagittarii	July 15 ..		18 19 5.02	+ 3.707	115 29 ...	...	— 1.67	...
	.....	17 ..		.....	.....	47.3	...	.....	...
	.....	30 ..		.....	.....	47.1	...	.....	...
997*	6288 B.A.C.	July 15 ..		18 21 ...	— 0.895	18 33 16.0	...	— 1.86	6.5
	.....	18 ..		.....	.....	17.9	...	.....	...
	.....	30 5		19.69	.....	.....	...	.....	6.7
	.....	Aug. 4 5		19.98	.....	.....	...	.....	6.3
998	χ Draconis	July 25 5		18 23 38.90	— 1.190	17 19 ...	...	— 2.07	...
	.....	29 ..		.....	.....	51.7	...	.....	...
	.....	31 5		38.83	.....	.....	...	.....	...
	.....	Aug. 1 ..		.....	.....	51.9	...	.....	...
	.....	2 ..		39.15	.....	.....	...	.....	...
	.....	5 ..		.....	.....	53.8	...	.....	...
999	.....	Aug. 13 3		18 23 44.84	— 26.254	2 36 ...	...	.....	8.0
	.....	14 3		44.50	.....	.....	...	.....	8.0
1000	24 Urs. Miu.....	Aug. 4 ..		18 24 0	.....	3 1 23.5	...	— 2.11*	...
	.....	13 ..		.....	.....	23.2	...	.....	...
	.....	14 ..		.....	.....	23.9	...	.....	...
1001*	42 Draconis	July 17 ..		18 25 34.15	+ 0.159	24 31 ...	...	— 2.23	5.5
	.....	26 5		34.23	.....	.....	...	.....	5.7
	.....	Aug. 2 ..		.....	.....	33.6	...	.....	...
	.....	5 ..		34.31	.....	.....	...	.....	4.7
1002	25 Sagittarii	July 16 ..		18 25 44.15	+ 3.672	114 20 ...	...	.....	6.5
	.....	29 ..		44.32	.....	.....	...	.....	7.0
	.....	Aug. 1 ..		44.22	.....	.....	...	.....	6.7

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Precession in R.A.		Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h.	m.	s.	s.		D.	R.		
1003	Aquila.....	July	15	18	27	22.23	+ 3.266		98	20	...	...
			17	...	...	...	...		26.1	...	...	...
			30	...	...	22.31	...		...	...	...	5.0
1004	6336 B.A.C.	July	31	18	29	16.99	+ 3.595		111	31	...	7.0?
		Aug.	4	...	...	16.97	...		...	...	...	6.3
1005*	6338 B.A.C.	July	30	18	29	...	+ 3.705		115	32	18.8	...
		Aug.	1	...	...	22.07	...		...	...	...	8.5
		...	6	...	...	21.99	...		...	...	...	8.5?
1006	6347 B.A.C.	July	15	18	30	...	+ 3.585		111	9	58.5	...
		...	30	...	...	18.29	...		...	...	...	6.3
		Aug.	5	...	...	18.43	...		59.1	...	...	6.3 6.7
1007	6349 B.A.C.	July	18	18	30	32.29	+ 2.007		51	13	...	...
		...	25	...	...	32.29	...		...	...	...	6.7
		Aug.	7	...	...	...	...		10.8	...	...	...
		...	14	...	...	32.27	...		...	...	...	7.5
1008	.....	July	15	18	31	57.26	+ 2.022		51	35	...	...
		...	16	...	...	57.06	...		57.5	...	...	7.7 8.3
		...	17	...	...	57.13	...		...	...	...	7.7
1009	α Lyrae.....	July	18	18	32	...	+ 2.030*		51	20	52.8	...
		...	22	...	...	3.75	...		...	...	...	...
		...	25	...	...	...	...		50.4	...	...	...
		...	26	...	...	3.75	...		...	52.5	...	...
		...	29	...	...	3.66	...		...	...	...	...
		Aug.	13	...	...	...	...		51.8	...	...	...
		Sept.	5	...	...	...	...		52.4	...	...	...
1010	6368 B.A.C.	July	17	18	35	42.51	+ 1.177		34	53	...	...
		...	22	...	...	42.34	...		...	...	...	7.3
		...	25	...	...	42.36	...		...	...	...	7.3
		...	29	...	...	...	...		10.3	...	...	8.0?
		Aug.	14	...	...	...	...		12.2	...	...	...
		Sept.	4	...	...	...	...		10.1	...	...	...
	
1011	6369 B.A.C.	Aug.	1	18	35	58.44	+ 3.692		115	9	...	...
		...	5	...	...	58.66	...		...	...	...	6.5
		...	6	...	...	58.39	...		...	...	...	6.3

No.	Star.	Date of Obs.	No. of Wires	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1012	ϕ Sagittarii	July 15 ..	18 36	39.50	+ 3.748	117 8 1.0	...	— 3.20	...
	.....	16 ..		39.52	.....	8.4	...	.....	...
	.....	31 ..		39.52	.....	.....	...	.....	...
1013	6386 B.A.C.	July 17 ..	18 39	...	+ 3.563	110 25 32.4	...	— 3.43	7.3
	.....	29 ..		19.77	.....	.....	...	.....	6.7
	.....	Aug. 6 ..		.....	.....	33.1	...	.....	7.0
	.....	14 ..		19.66	.....	.....	...	.....	...
	.....	Sept. 3 ..		.....	.....	32.8	...	.....	...
1014	110 Herculis	July 26 ..	18 39	28.10	+ 2.582	69 35 ...	...	.....	...
	.....	Sept. 3 ..		27.67	.....	.....	...	.....	...
1015	ϵ^1 Lyrae (1st)	Aug. 4 ..	18 39	34.14	+ 1.985	50 29 ...	...	.....	...
1016	ϵ^1 Lyrae (2d)	Aug. 6 ..	18 39	34.32	+ 1.985	50 29 ...	...	.....	...
1017	ϵ^2 Lyrae (1st)	Aug. 7 ..	18 39	36.34	+ 1.987	50 32 ...	...	.....	...
1018	ϵ^2 Lyrae (2d)	Aug. 5 ..	18 39	36.71	+ 1.987	50 32 ...	...	.....	...
1019*	ζ Lyrae (1st)	Aug. 11 ..	18 39	48.74	+ 2.063	52 33 ...	...	.....	...
1020	.....	Aug. 1 .	18 39	50	.....	3 30 10.6	...	— 3.47	7.7
1021*	ζ Lyrae (2d)	Aug. 13 ..	18 39	50.66	+ 2.063	52 33 ...	...	.....	6.0
1022*	6396 B.A.C.	July 15 5	18 40	37.26	+ 3.751	117 17 ...	...	.....	7.3?
1023	111 Herculis	July 18 ..	18 40	40	.....	71 58 32.8	...	— 3.54	...
	.....	Aug. 22 ..		.....	.....	32.8	...	.....	...
1024*	6400 B.A.C.	July 15 ..	18 41	...	+ 3.631	113 0 26.1	...	— 3.61	...
	.....	16 ..		29.54	.....	.....	...	.....	7.0
	.....	17 ..		29.85	.....	.....	...	.....	7.0
	.....	Aug. 1 ..		29.81	.....	.....	...	.....	7.3
1025*	ν^1 Lyrae	July 18 ..	18 44	24.34	+ 2.231	57 21 ...	...	— 3.86	...
	.....	Aug. 4 ..		24.41	.....	.....	...	.....	6.5
	.....	6 ..		24.46	.....	.....	...	.....	6.3
	.....	7 ..		.....	.....	0.8	...	.....	...
	.....	14 ..		.....	.....	1.3	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1026*	ν^2 Lyræ.....	July 22 ..	22 ..	18 44 30.27	+ 2.240	57 36 ...	...	— 3.87	...
	.....	30 ..	30 ..	.....	.....	43.0	...	.....	...
	.....	Aug. 5 ..	5 ..	30.54	.....	.....	...	.....	6.0
	.....	7 ..	7 ..	30.32	.....	.....	...	.....	6.3?
	.....	Sept. 5 ..	5 ..	.....	.....	44.0	...	.....	6.0
1027	β Lyræ (1st).....	July 25 ..	25 ..	18 44 45.84	+2.212*	56 48 ...	...	.....	...
	.....	26 ..	26 ..	45.88	.....	.....	...	.....	...
	.....	31 ..	31 ..	45.86	.....	.....	...	.....	...
	.....	Aug. 11 ..	11 ..	45.73	.....	.....	...	.....	...
	.....	14 ..	14 ..	45.82	.....	.....	...	.....	...
	.....	Sept. 3 ..	3 ..	45.70	.....	.....	...	.....	...
1028	β Lyræ (2d)	July 29 ..	29 ..	18 44 47.94	+ 2.214	56 48 ...	...	— 3.90	7.0
	.....	30 ..	30 ..	47.63	.....	.....	...	.....	7.3
	.....	Aug. 1 ..	1 ..	47.70	.....	.....	...	.....	7.0
	.....	9 ..	9 ..	.....	.....	46.8	...	.....	...
1029	σ Sagittarii	July 15 ..	15 ..	18 46 20.13	+ 3.724	116 28 15.6	...	— 4.03	...
	.....	16 ..	16 ..	20.11	.....	15.3	...	.....	...
	.....	Aug. 13 ..	13 ..	20.14	.....	.....	...	.....	...
1030*	6447 B.A.C.	July 17 ..	17 ..	18 47 13.43	+ 3.462	106 32 ...	...	— 4.10	6.3
	.....	26 ..	26 ..	.....	.....	48.0	...	.....	...
	.....	31 5	31 5	13.48	.....	.....	...	.....	6.3?
	.....	Aug. 2 ..	2 ..	.....	.....	51.8	...	.....	...
	.....	4 ..	4 ..	13.25	.....	.....	...	.....	6.0
	.....	5 ..	5 ..	.....	.....	51.1	...	.....	6.7
	.....	6 ..	6 ..	.....	.....	52.8	...	.....	6.5
1031	θ Serpentis (1st).	Aug. 11 ..	11 ..	18 49 3.69	+ 2.980	85 59 ...	...	.....	...
	.....	14 ..	14 ..	3.74	.....	.....	...	.....	...
	.....	Sept. 3 5	3 5	3.51	.....	.....	...	.....	5.3
1032	θ Serpentis (2d) .	July 16 ..	16 ..	18 49 5.06	+ 2.980	85 58 ...	...	— 4.26	...
	.....	22 ..	22 ..	5.21	.....	.....	...	.....	...
	.....	26 ..	26 ..	5.18	.....	.....	...	.....	...
	.....	Aug. 29 ..	29 ..	.....	.....	51.8	...	.....	...
	.....	Sept. 2 ..	2 ..	.....	.....	52.6	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1033*	9 Aquilæ.....	July 29 ..		18 49 20	.....	96 1 47.1	...	— 4.29	5.7
	.....	Aug. 13 ..		.....	.....	46.8	...	.....	...
	.....	Sept. 4 ..		.....	.....	44.8	...	.....	...
1034	50 Draconis.....	July ₄ 17 5		18 50 59.65	— 1.886	14 44 ...	...	.....	5.7
	.....	Aug. 5 6		59.85	.....	.....	...	.....	5.5
	.....	6 6		59.67	.....	.....	...	.....	5.5
1035	6480 B.A.C.	Sept. 3 ..		18 51 ...	+ 2.234	57 16 50.9	...	— 4.48	5.7
	.....	4 ..		37.58	.....	.....	...	.....	5.7
1036	ε Aquilæ.....	July 17 ..		18 53 ...	+ 2.726	75 7 25.5	...	— 4.61	...
	.....	18 ..		5.25	.....	.....	...	.....	...
	.....	25 ..		.....	.....	24.1	...	.....	...
	.....	26 ..		5.27	.....	.....	...	.....	...
	.....	30 5		5.19	.....	.....	...	.....	...
1037	ζ Sagittarii.....	Aug. 1 ..		18 53 30	.....	120 4 52.7	...	— 4.64	...
	.....	4 ..		.....	.....	53.5	...	.....	...
1038*	γ Lyrae.....	July 22 ..		18 53 33.52	+ 2.243	57 30 ...	...	— 4.64	...
	.....	Aug. 1 ..		33.60	.....	.....	...	.....	...
	.....	11 ..		33.41	.....	18.9	...	.....	...
1039	6490 B.A.C.	July 31 ..		18 53 38.79	+ 3.680	115 2 ...	...	— 4.65	7.0?
	.....	Aug. 7 ..		38.63	.....	.....	...	.....	...
	.....	14 ..		38.89	.....	26.4	...	.....	6.0
	.....	Sept. 5 ..		.....	.....	27.0	...	.....	6.7
1040*	6505 B.A.C.	July 17 ..		18 55 55.50	+ 3.690	115 26 ...	...	— 4.76	7.5?
	.....	Aug. 2 ..		.....	.....	22.7	...	.....	7.5
	.....	4 ..		55.29	.....	.....	...	.....	7.5
	.....	5 ..		.....	.....	16.8	...	.....	7.3
	.....	13 ..		55.36	.....	.....	...	.....	...
	.....	Sept. 4 ..		.....	.....	17.4	...	.....	...
1041	16 Lyrae.....S.P.	Jan. 12 ..		18 57 20	.....	43 16 3.8	...	— 4.97	...
1042*	λ Aquilæ.....	July 26 ..		18 58 36.43	+ 3.187	95 6 ...	...	.....	...
	.....	Aug. 1 ..		36.52	.....	.....	...	.....	...
	.....	5 ..		36.53	.....	.....	...	.....	...
	.....	7 ..		36.25	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1043	ζ Aquilæ	July 16	..	18 58 47.49	+2.752*	76 21 ...	...	.....	...
		22	..	47.50	.....	.....	...	.....	...
1044	R Aquilæ	Aug. 14	..	18 59 26.24	+2.890	81 59 ...	...	— 5.14	6.5?
		29	..	.....	.....	5.0	...	.....	8.7?
		Sept. 2	..	26.08	.....	.....	...	.....	7.7
		3	..	26.10	.....	.....	...	.....	8.0
		4	..	.....	.....	5.5	...	.....	8.0
1045	6547 B.A.C.	July 25	..	19 0 ...	+2.374	61 35 38.8	...	— 5.27	6.0
		29	..	.....	.....	40.3	...	.....	6.0
		31	..	54.78	.....	.....	...	.....	6.0
		Aug. 4	..	54.73	.....	41.7	...	.....	5.7
		7	..	.....	.....	40.0	...	.....	...
		11	..	55.04	.....	.....	...	.....	...
1046	.....	July 29	3	19 1 18.46	—18.145	3 28 ...	...	— 5.30	6.5
		Sept. 3	3	18.48	.....	.....	...	.....	6.5
		5	3	18.17	.....	.....	...	.....	6.7
		S.P. Feb. 29	..	.....	.....	41.8	...	.....	...
1047	17 Lyre	July 22	..	19 1 58.79	+2.258	57 43 ...	...	— 5.36	...
		25	..	58.87	.....	.....	...	.....	...
		26	..	58.85	.....	.....	...	.....	5.7
		30	..	.....	.....	18.7	...	.....	...
		Aug. 6	..	.....	.....	20.7	...	.....	6.3
		Sept. 2	..	.....	.....	18.7	...	.....	...
1048*	6563 B.A.C.	July 16	5	19 3 57.37	—2.427	13 9 ...	...	— 5.53	6.3
		Aug. 14	..	.....	.....	29.6	...	.....	...
		Sept. 3	..	.....	.....	28.7	...	.....	7.5
		5	..	.....	.....	28.7	...	.....	7.5
1049	6567 B.A.C.	July 31	..	19 5 15.36	+2.288	58 35 ...	...	— 5.63	7.5
		Aug. 1	..	.....	.....	51.3	...	.....	7.3
		2	..	.....	.....	52.9	...	.....	7.3
		7	..	15.34	.....	.....	...	.....	7.5?

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1050	6590 B.A.C.	July 31 ..		19 10 47.34	+ 3.432	105 46 ...	...	— 6.10	6.7
	.....	Aug. 1 ..		47.41	.....	.....	...	.....	5.7
	.....	4 ..		47.29	.....	61.9	...	.....	6.3
	.....	7 ..		47.37	.....	60.7	...	.....	6.5
	.....	Sept. 4 ..		.....	.....	58.4	...	.....	6.5?
1051	ω Aquilæ	July 16 ..		19 11 5	.....	78 39 38.1	...	— 6.12	...
	.....	29 ..		.....	.....	38.1	...	.....	6.0
	.....	Aug. 6 ..		.....	.....	38.0	...	.....	6.0
1052	24 Aquilæ	July 16 ..		19 11 28.76	+ 3.070	89 55 ...	...	— 6.16	6.5
	.....	22 ..		29.01	.....	.....	...	.....	6.7
	.....	29 ..		29.03	.....	.....	...	.....	6.3
	.....	30 ..		.....	.....	9.4	...	.....	...
	.....	Aug. 29 ..		.....	.....	10.0	...	.....	7.0?
	.....	Sept. 5 ..		.....	.....	9.1	...	.....	7.3
1053	δ Draconis.....	Aug. 5 ..		19 12 30.82	+ 0.018	22 35 ...	...	— 6.24	...
	.....	11 ..		.....	.....	30.8	...	.....	...
	.....	22 ..		30.79	.....	31.4	...	.....	...
	.....	Sept. 2 ..		30.67	.....	.....	...	.....	...
	.....	S.P. Feb. 7 ..		.....	.....	32.0	...	.....	...
1054	ρ ² Sagittarii	July 17 ..		19 13 26.96	+ 3.498	108 34 17.2	...	— 6.32	...
	.....	30 ..		26.86	.....	.....	...	.....	...
	.....	31 ..		26.80	.....	.....	...	.....	6.3?
	.....	Sept. 2 ..		.....	.....	17.4	...	.....	...
	.....	3 ..		.....	.....	17.9	...	.....	...
1055	59 Draconis	Aug. 1 ..		19 14 ..	— 2.134	13 40 54.6	...	— 6.40	...
	.....	14 ..		.....	.....	55.7	...	.....	...
	.....	29 3		24.70	.....	.....	...	.....	5.7
	.....	Sept. 3 3		24.11	.....	.....	...	.....	5.5
	.....	S.P. Jan. 30 ..		.....	.....	.....	54.2	.....	...
1056	χ ¹ Sagittarii	July 17 ..		19 16 30.70	+ 3.656	114 46 ...	...	— 6.57	...
	.....	Aug. 5 ..		.....	.....	61.0	...	.....	...
	.....	7 ..		30.65	.....	.....	...	.....	...
	.....	9 ..		.....	.....	60.2	...	.....	...
	.....	Sept. 4 ..		.....	.....	59.7	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1057	δ Aquilæ.....	July 16 ..	19 18	14.24	+3.024*	87 10 ...	...	- 6.82*	...
	.....	22 ..		14.26	.....	.....	...	.....	...
	.....	30 ..		14.26	.....	5.3	...	.....	...
	.....	Aug. 2 ..		.....	.....	6.2	...	.....	...
	.....	13 ..		.....	.....	7.4	...	.....	...
1058	τ Draconis.....	Aug. 1 4	19 18	17.86	- 1.070	16 54 ...	...	- 6.72	...
	.....	4 4		18.14	.....	.....	...	.....	...
	.....	Sept. 5 5		17.65	.....	47.6	...	.....	...
	.....S.P.	Feb. 29 ..		.....	.....	49.8	...	.....	...
1059	6657 B.A.C.	July 16 ..	19 19	...	+ 2.495	65 20 40.3	...	- 6.82	...
	.....	31 ..		28.29	.....	.....	...	.....	6.5
	.....	Aug. 6 ..		.....	.....	40.0	...	.....	6.7
	.....	7 ..		28.24	.....	.....	...	.....	...
	.....	29 ..		.....	.....	39.1	...	.....	7.0?
1060	δ Vulpeculæ	July 17 ..	19 22	...	+ 2.503	65 31 28.9	...	- 7.10	...
	.....	29 ..		56.52	.....	.....	...	.....	5.7
	.....	31 ..		56.42	.....	.....	...	.....	6.0
	.....	Aug. 11 ..		.....	.....	31.7	...	.....	...
	.....	14 ..		.....	.....	30.5	...	.....	...
	.....	Sept. 4 ..		.....	.....	29.0	...	.....	...
1061	6683 B.A.C.	July 16 ..	19 23	42.16	+ 3.572	111 49 ...	...	.....	7.0?
	.....	Aug. 1 ..		42.23	.....	.....	...	.....	7.5?
	.....	4 ..		42.09	.....	.....	...	.....	7.7?
1062	β Cygni (1st)	Aug. 1 ..	19 24	55	.....	62 20 23.3	...	- 7.26	...
	.....	Sept. 3 ..		.....	.....	22.4	...	.....	...
1063	β Cygni (2d)	July 29 ..	19 25	0	.....	62 20 4.9	...	- 7.27	6.7
	.....	Aug. 4 ..		.....	.....	3.9	...	.....	6.5
	.....	22 ..		.....	.....	4.6	...	.....	...
	.....	Sept. 2 ..		.....	.....	4.6	...	.....	...
1064	ϵ^2 Cygni.....	July 30 ..	19 26	...	+ 1.513	38 34 30.6	...	- 7.36	...
	.....	Aug. 5 ..		4.48	.....	.....	...	.....	...
	.....	7 ..		.....	.....	31.9	...	.....	...
	.....	22 4		4.37	.....	.....	...	.....	...
	.....S.P.	Jan. 31 ..		.....	.....	30.3	...	.....	...

No.	Star.	Date of Obs.	No. of Wires	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1065	μ Aquilæ	Aug. 9 ..	19 27 0	.....	82 55 24.3	...	—	7.44	...
	.....	29 ..	.....	.....	21.8	...	.....	...	...
	.....	Sept. 5 ..	.....	.....	24.0	...	.....	...	...
1066*	51 Sagittarii h^1 ...	Aug. 1 ..	19 27 16.84	+ 3.652	115 2 ...	...	.....	6.0	...
	.....	4 ..	16.87	.....	.....	...	.....	6.3	...
	.....	7 ..	16.86	.....	.....	...	.....	...	...
1067	52 Sagittarii h^2 ...	July 16 ..	19 27 56.50	+ 3.656	115 11 49.5	...	—	7.51	...
	.....	17 ..	56.48	.....	50.7	...	.....	...	...
	.....	Sept. 4 ..	.....	.....	48.0	...	.....	...	...
	.....	10 ..	.....	.....	50.0	...	.....	...	...
1068	42 Aquilæ	July 16 5	19 30 8.78	+ 3.179	94 57 ...	...	—	7.69	5.5
	.....	Aug. 5 ..	.....	.....	54.0	...	.....	6.5	...
	.....	Sept. 2 ..	8.90	.....	.....	...	.....	6.0	...
	.....	16 ..	.....	.....	53.9	...	.....	...	...
1069	6723 B.A.C.	Aug. 2 ..	19 30 36.06	+ 1.552	39 4 ...	...	—	7.72	6.0
	.....	4 ..	36.22	.....	.....	...	.....	5.7	...
	.....	5 ..	36.09	.....	.....	...	.....	6.3	...
	.....	6 ..	.....	.....	14.1	...	.....	6.5	...
	.....	11 3	36.13	.....	.....	...	.....	...	...
	.....S.P. Feb.	9 ..	.....	.....	15.9	...	.....	...	...
1070	53 Sagittarii	Aug. 14 6	19 31 10.19	+ 3.615	113 45 ...	...	.....	...	...
	.....	Sept. 16 3	10.29	.....	.....	...	.....	...	...
1071	θ Cygni.....	Aug. 1 ..	19 32 34.67	+ 1.613	40 6 36.8	...	—	7.88	...
1072	σ Draconis	Aug. 22 5	19 32 38.02	— 0.203	20 35 ...	...	.....	...	...
1073	6741 B.A.C.	Aug. 4 ..	19 34 0	.....	41 2 48.8	...	—	8.00	7.0
1074	6746 B.A.C.	July 16 ..	19 35 20.52	+ 3.418	105 47 ...	...	—	8.11	5.7
	.....	Aug. 4 ..	20.54	.....	.....	...	.....	6.0	...
	.....	13 ..	.....	.....	59.7	...	.....	...	...
	.....	14 ..	20.72	.....	.....	...	.....	...	...
1075	.....	Aug. 9 ..	19 35 40	.....	2 24 11.7	...	—	8.13	...
	.....	Sept. 3 ..	.....	.....	9.9	...	.....	8.7	...

No.	Star.	Date of Obs.	No. of Wires	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1076	6750 B.A.C.	Aug. 5 ..		19 35 54.54	+ 2.672	71 52 ...	...	.....	7.0
	.....	13 ..		54.44	.....	.....	...	.....	7.0
	.....	Sept. 10 ..		54.68	.....	.....	...	.....	7.0
1077	16 Cygni c.	July 16 ..		19 37 ...	+ 1.612	39 48 25.9	...	— 8.32	...
	.....	17 ..		.....	.....	27.4	...	.....	...
	.....	Aug. 22 ..		59.10	.....	.....	...	.....	...
	.....	Sept. 10 ..		.....	.....	26.5	...	.....	7.0
1078	6764 B.A.C.	Aug. 1 6		19 38 2.07	+ 1.613	39 48 ...	...	— 8.32	5.7
	.....	7 ..		1.71	.....	.....	...	.....	6.0
	.....	12 ..		2.01	.....	.....	...	.....	6.3
	.....	22 ..		.....	.....	54.5	...	.....	...
	.....	Sept. 5 ..		.....	.....	53.7	...	.....	7.5
1079	15 Cygni	July 16 ..		19 39 4.93	+ 2.157	52 59 ...	...	.....	5.0
1080	γ Aquilæ	Aug. 2 ..		19 39 24.82	+ 2.854*	79 44 ...	...	.....	...
	.....	4 ..		24.80	.....	.....	...	.....	...
	.....	5 ..		24.87	.....	.....	...	.....	...
1081	6773 B.A.C.	Aug. 13 ..		19 39 30.71	+ 3.545	111 19 ...	...	.....	7.0?
1082	δ Sagittæ	Aug. 14 ..		19 40 58.12	+ 2.675	71 49 ...	...	.....	...
1083	6785 B.A.C.	Aug. 4 ..		19 41 ...	+ 3.312	101 13 30.9	...	— 8.56	6.5
	.....	5 ..		.....	.....	28.8	...	.....	6.7
	.....	6 ..		.....	.....	29.2	...	.....	6.5
	.....	Sept. 2 ..		.....	.....	29.5	...	.....	...
	.....	5 ..		5.65	.....	.....	...	.....	6.0
1084	α Aquilæ	Aug. 1 ..		19 43 45.45	+ 2.928*	81 31 ...	...	.....	...
	.....	2 ..		45.48	.....	.....	...	.....	...
	.....	7 ..		45.38	.....	.....	...	.....	...
1085	.....	Aug. 9 3		19 43 50.13	— 13.226	4 13 ...	...	.....	7.3
	.....	12 3		49.38	.....	.....	...	.....	7.5
	.....	22 3		50.46	.....	.....	...	.....	...
	.....	Sept. 10 4		49.47	.....	.....	...	.....	...
	..... S.P.	Feb. 9 3		50.27	.....	.....	...	.....	7.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1086	α Aquilæ	July 16 ..	19 44	7.67	+ 2.859	79 56 ...	...	— 8.80	...
	.....	Aug. 5 ..		7.91	.....	.....	...	.....	6.0?
	.....	7 ..		.....	.....	28.2	...	.....	...
1087	6806 B.A.C.	Aug. 4 ..	19 44	21.65	+ 2.122	51 39 ...	...	.....	6.0
1088	η Aquilæ	Sept. 16 ..	19 45	10	.....	89 21 39.5	...	— 8.88	...
1089	19 Cygni	Sept. 4 ..	19 45	30	.....	51 38 44.4	...	— 8.91	...
1090	.....	Aug. 9 3	19 45	35.61	—13.147	4 13 ...	...	.....	8.3
	.....	12 3		35.02	.....	.....	...	.....	8.3
	.....	Sept. 2 3		35.90	.....	.....	...	.....	9.3
	.....S.P.	Feb. 9 3		35.52	.....	.....	...	.....	8.7
1091	ω Sagittarii	Aug. 7 ..	19 47	0.84	+ 3.671	116 40 ...	...	— 9.03	...
	.....	14 ..		.....	.....	39.0	...	.....	...
1092	58 Aquilæ.....	Aug. 5 ..	19 47	22.29	+ 3.074	90 6 ...	...	.....	6.0
1093	59 Sagittarii <i>b</i>	July 16 ..	19 48	6.36	+ 3.693	117 32 48.7	...	— 9.11	...
	.....	17 ..		6.44	.....	49.9	...	.....	...
	.....	Sept. 2 ..		.....	.....	50.0	...	.....	...
	.....	10 6		6.65	.....	51.2	...	.....	...
1094	β Aquilæ	Aug. 13 ..	19 48	14.45	+2.949*	83 57 ...	...	.....	...
	.....	Sept. 16 ..		14.56	.....	.....	...	.....	...
1095*	ε Draconis.....	Aug. 4 ..	19 48	40	.....	20 5 57.3	...	— 9.15	...
	.....	5 ..		.....	.....	57.5	...	.....	...
	.....	9 ..		.....	.....	55.4	...	.....	...
	.....S.P.	Feb. 9 ..		.....	.....	57.7	...	.....	...
1096*	61 Sagittarii <i>g</i>	Aug. 6 ..	19 49	50	.....	105 52 12.1	...	— 9.24	...
	.....	13 ..		.....	.....	11.4	...	.....	...
	.....	29 ..		.....	.....	8.8	...	.....	5.7
1097*	η Cygni.....	Aug. 7 ..	19 50	...	+ 2.252	55 17 48.1	...	— 9.33	...
	.....	14 ..		54.38	.....	.....	...	.....	...
	.....	22 ..		.....	.....	47.7	...	.....	...
	.....	Sept. 3 ..		54.30	.....	48.9	...	.....	{ 4.7 5.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h.	m.	s.		D.	R.		
1098	11 Sagittæ.....	July 17 ..	19	51	13.23	+	2.724	73 35 ...	...	— 9.35	5.7
	.....	Aug. 4 ..			13.18	.....	.....	.....	.....	.....	6.0
	.....	.....	5 ..		13.28	.....	.....	.....	.....	.....	5.5
	.....	.....	7 ..		13.06	.....	.....	.....	.....	.....	...
	.....	Sept. 5 ..			.....	.....	.....	43.9	...	.....	6.0
1099	6855 B.A.C.	July 16 ..	19	51	41.00	+	2.731	73 53 ...	...	.....	7.0
1100	6867 B.A.C.	Aug. 22 5	19	53	10.62	+	1.153	31 32 ...	...	— 9.51	...
	.....	.....	29 5		10.40	.....	.....	.....	.....	.....	5.5
	.....	Sept. 16 ..			.....	.....	.....	14.2	...	.....	...
	.....	.....	30 ..		.....	.....	.....	15.6	...	.....	...
1101	62 Sagittarii c ...	Aug. 13 ..	19	53	47.79	+	3.699	118 6 ...	...	— 9.56	...
	.....	.....	14 ..		47.94	.....	.....	21.3	...	.....	...
1102	25 Cygni	July 16 ..	19	54	38.28	+	2.199	53 21 ...	...	.....	...
	.....	Sept. 5 ..			38.42	.....	.....	.....	...	.....	5.7
1103	6878 B.A.C.	Aug. 5 ..	19	55	12.11	+	3.569	113 0 ...	...	.....	6.3
	.....	Sept. 10 ..			12.18	.....	.....	.....	...	.....	...
1104	6880 B.A.C.	Sept. 3 ..	19	55	23.91	+	3.404	105 49 ...	...	.....	7.5
	.....	.....	16 4		24.12	.....	.....	.....	...	.....	...
1105	15 Sagittæ	July 16 ..	19	57	38.03	+	2.723	73 19 ...	...	— 9.85	5.7
	.....	Aug. 7 ..			37.95	.....	.....	.....	...	.....	...
	.....	.....	22 ..		38.20	.....	.....	.....	...	.....	...
	.....	Sept. 4 ..			.....	.....	.....	2.2	...	.....	6.3
1106	η Sagittæ	Aug. 7 ..	19	58	45	.....	.....	70 25 7.2	...	— 9.93	...
	.....	.....	13 ..		.....	.....	.....	7.3	...	.....	...
	.....	Sept. 3 ..			.....	.....	.....	7.1	...	.....	...
1107	6907 B.A.C.	Aug. 7 ..	20	0	21.58	+	3.392	105 26 ...	...	— 10.05	...
	.....	.....	9 ..		.....	.....	.....	27.8	...	.....	...
	.....	Sept. 2 ..			.....	.....	.....	27.9	...	.....	7.5
	.....	.....	4 ..		21.48	.....	.....	.....	...	.....	6.7
	.....	.....	5 ..		.....	.....	.....	27.3	...	.....	7.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h.	m.	s.		D.	R.		
1108	27 Cygni <i>b</i> ¹	Aug. 13	..	20	1	0.88	+ 2.246	54 25 ...	...	- 10.11	6.0
	.....	29	..	.....	.....	.....	.....	18.1	...	.....	...
	.....	Sept. 2	..	.....	.....	0.87	.....	.....	...	.....	5.7
	.....	16	..	.....	.....	.....	.....	18.6	...	.....	...
	.....	30	..	.....	.....	.....	.....	19.2	...	.....	...
1109	6914 B.A.C.	July 16	..	20	1	8.19	+ 3.515	111 1 ...	...	.....	7.5
	.....	Sept. 5	..	.....	.....	8.14	.....	.....	...	.....	7.5
1110	6923 B.A.C.	Aug. 14	..	20	2	4.60	+ 3.486	109 48 ...	...	.....	7.0
1111*	66 Draconis	Aug. 29	..	20	3	15.19	+ 0.950	28 25 ...	...	.....	6.0
1112*	69 Draconis	Sept. 16	..	20	3	35.24	- 1.557	13 55 ...	...	.....	6.5
1113*	28 Cygni <i>b</i> ²	Aug. 7	..	20	4	4.59	+ 2.226	53 35 ...	...	.....	...
1114*	.....	Aug. 9	..	20	6	...	+ 2.126	50 18 26.3	...	- 10.50	10.0
	.....	29	..	.....	.....	.....	.....	26.7	...	.....	10.3
	.....	Sept. 3	..	.....	.....	15.35	.....	.....	...	.....	10.5
	.....	4	..	.....	.....	15.07	.....	26.5	...	.....	10.3
	.....	5	..	.....	.....	15.10	.....	24.6	...	.....	10.3
	.....									.....	10.5
1115	29 Cygni <i>b</i> ³	Aug. 29	..	20	9	8.47	+ 2.239	53 38 ...	...	.....	5.7
1116	68 Draconis	Sept. 2	5	20	9	13.11	+ 0.978	28 21 24.0	...	- 10.72	6.3
	.....	16	..	.....	.....	.....	.....	22.8	...	.....	7.0
	.....	30	..	.....	.....	.....	.....	24.5	...	.....	...
1117*	α ¹ Capricorni	Sept. 10	..	20	9	40.01	+ 3.332	102 57 ...	...	.....	...
1118	α ² Capricorni	Aug. 6	..	20	10	3.82	+ 3.334*	102 59 ...	...	.....	...
	.....	9	..	.....	.....	3.72	.....	.....	...	.....	...
	.....	22	..	.....	.....	3.78	.....	.....	...	.....	...
	.....	Sept. 5	..	.....	.....	3.72	.....	.....	...	.....	...
1119	6980 B.A.C.	July 17	..	20	10	...	+ 1.107	29 47 57.0	...	- 10.84	...
	.....	Sept. 3	..	.....	.....	.....	.....	56.0	...	.....	7.0
	.....	16	..	.....	.....	48.57	.....	.....	...	.....	6.3

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1120	.....S.P.	Feb. 14	3	20 11 28.22	-11.110	4 32 ...	...	.....	8.5
	.....	March 8	3	28.41	.....	.....	...	.....	9.0
	.....	13	3	27.77	.....	.....	...	.....	8.7
1121	6986 B.A.C.	Aug. 14	..	20 11 ...	+ 2.133	50 4 42.5	...	- 10.91	...
	.....	Sept. 30	..	47.83	.....	.....	...	.....	...
1122*	6994 B.A.C. ....S.P.	March 14	..	20 12 25	.....	25 40 37.7	...	- 10.95	7.0
1123	7006 B.A.C.	Aug. 29	..	20 14 24.94	+ 2.242	53 19 ...	...	.....	6.7
	.....	Sept. 3	..	25.03	.....	.....	...	.....	7.0
1124	7009 B.A.C.	Sept. 2	..	20 15 22.75	+ 3.364	104 43 ...	...	.....	7.5
	.....	16	..	22.92	.....	.....	...	.....	7.0
1125	.....	Sept. 2	..	20 16 ...	-41.023	1 26 17.1	...	- 11.25	8.5
	.....	16	..	.....	.....	16.4	...	.....	...
	.....S.P.	March 8	..	.....	.....	19.3	...	.....	...
	.....	27	3	28.71	.....	.....	...	.....	8.0
1126	γ Cygni	Aug. 6	..	20 17 3.60	+ 2.151	50 12 ...	...	- 11.29	...
	.....	9	..	3.51	.....	.....	...	.....	...
	.....	13	..	.....	.....	7.0	...	.....	...
	.....	22	..	3.80	.....	7.3	...	.....	...
	.....	Sept. 10	..	.....	.....	6.6	...	.....	...
	.....	Oct. 1	..	.....	.....	6.8	...	.....	...
1127	3212 Gr.	July 17	..	20 19 50	.....	5 45 38.0	...	- 11.49	7.0
	.....	Aug. 29	..	.....	.....	37.4	...	.....	7.3
	.....	Sept. 3	..	.....	.....	37.8	...	.....	7.7
1128	ρ Capricorni	Aug. 9	..	20 20 38.75	+ 3.434	108 17 ...	...	- 11.55	...
	.....	12	..	38.65	.....	.....	...	.....	...
	.....	Sept. 30	..	.....	.....	10.9	...	.....	...
	.....	Oct. 10	..	.....	.....	12.3	...	.....	...
1129	7044 B.A.C.	July 17	..	20 20 47.08	+ 3.435	108 21 ...	...	.....	7.0?
	.....	Sept. 3	..	46.94	.....	.....	...	.....	6.7
	.....	10	..	47.21	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1130	72 Draconis	Aug. 9	..	20 21 ..	+ 1.035	28 11 56.5	...	- 11.58	8.5
	.....	14	..	.....	.....	59.1	...	.....	...
	.....	Sept. 2	..	3.90	.....	.....	...	.....	8.5
1131	.....	Aug. 29	3	20 21 26.50	- 10.287	4 40 ..	...	.....	7.0
1132	69 Aquilæ	Sept. 16	..	20 22 7.36	+ 3.136	93 22 ..	...	.....	5.5
1133	.....	July 17	3	20 23 40.09	- 36.717	1 33 ..	...	- 11.77	9.0
	.....	Sept. 2	..	.....	.....	33.0	...	.....	9.3
	.....S.P.	March 27	3	38 9 1	.....	.....	...	.....	9.3
	.....	29	3	39.78	.....	.....	...	.....	9.5
1134	7069 B.A.C.	Sept. 30	..	20 23 47.52	+ 3.523	112 38 ..	...	.....	8.0
1135	7070 B.A.C.	Aug. 9	..	20 23 49.63	+ 3.523	112 39 ..	...	.....	8.5
1136	7077 B.A.C.	Sept. 3	..	20 24 17.61	+ 3.585	115 26 ..	...	.....	7.0?
1137	7079 B.A.C. (1st) .	Aug. 14	..	20 24 19.56	+ 2.866	79 14 ..	...	.....	7.7
1138	7079 B.A.C. (2d) ..	Aug. 12	..	20 24 20.43	+ 2.866	79 13 ..	...	- 11.81	7.3
	.....	Sept. 22	..	.....	.....	17.0	...	.....	...
1139	7090 B.A.C.	Aug. 29	..	20 26 30	.....	21 42 44.3	...	- 11.97	7.7
	.....	Sept. 10	..	.....	.....	42.9	...	.....	7.7
	.....S.P.	March 8	..	.....	.....	45.3	...	.....	...
1140	.....	July 17	..	20 29 ..	- 8.258	5 21 56.2	...	- 12.14	7.5
	.....	Sept. 30	..	.....	.....	55.2	...	.....	8.0
	.....S.P.	Feb. 16	..	.....	.....	53.4	...	.....	...
	.....	March 11	3	4.04	.....	.....	...	.....	7.7
1141	3260 Gr. ....S.P.	March 31	4	20 29 51.30	- 7.164	5 55 ..	...	.....	7.5
1142	26 Vulpeculæ	Aug. 29	..	20 29 58.00	+ 2.568	64 37 ..	...	.....	...
1143	.....	Sept. 5	..	20 30 ..	- 8.255	5 20 8.5	...	- 12.27	8.0
	.....	16	..	.....	.....	7.1	...	.....	7.5
	.....S.P.	Feb. 15	3	48.91	.....	.....	...	.....	...
	.....	March 11	3	49.05	.....	.....	...	.....	7.0
	.....	April 1	..	.....	.....	7.2	...	.....	7.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
1144*	β Delphini	Sept. 4 ..		h. m. s. 20 30 50	.....	75 54 ...	10.2	— 12.26	...
1145	ν Capricorni	Aug. 9 ..		20 31 50.96	+ 3.427	108 38 ...	...	.....	...
	.....	12 ..		50.92	.....	.....	...	.....	...
1146	ι Aquarii.....	Sept. 30 ..		20 32 2.01	+ 3.072	90 1 ...	...	.....	6.0
1147	κ Delphini	Sept. 22 ..		20 32 3.25	+ 2.894	80 25 ...	...	— 12.36	...
	.....	Oct. 1 ..		.....	.....	5.9	...	.....	...
1148*	α Delphini.....	Sept. 12 ..		20 32 56.89	+ 2.782	74 36 ...	...	.....	...
1149	ς Capricorni.....	Sept. 3 ..		20 33 29.73	+ 3.445	109 34 4.9	...	— 12.45	8.7
	.....	4 ..		29.80	.....	.....	...	.....	9.0
	.....								9.3
1150	24 Cephei (Hev.)	Sept. 2 ..		20 33 ...	—42.597	1 18 46.8	...	— 12.48	8.7
	.....	4 2		54.81	.....	.....	...	.....	8.3
	.....S.P.	March 14 3		53.46	.....	.....	...	.....	8.0
1151	.....S.P.	Feb. 16 3		20 35 41.14	—11.109	4 12 ...	...	.....	8.7
1152*	S. 2718 (2d).....	July 17 ..		20 35 44.44	+ 2.847	77 47 ...	...	.....	7.7
	.....	Sept. 22 ..		44.47	.....	.....	...	.....	8.0
1153	α Cygni.....	Aug. 29 ..		20 36 31.39	+2.042*	45 14 ...	...	.....	...
	.....	Sept. 12 ..		31.47	.....	.....	...	.....	...
1154	ς 1 Cygni	Sept. 3 ..		20 36 46.15	+ 1.849	40 10 ...	...	— 12.67	6.0
	.....	Oct. 10 ..		.....	.....	32.2	...	.....	...
1155	74 Draconis.....	Sept. 22 ..		20 37 ...	— 3.157	9 24 56.1	...	— 12.73	...
	.....	30 3		35.58	.....	.....	...	.....	6.3
1156	30 Vulpeculæ	Sept. 2 ..		20 38 38.58	+ 2.597	65 15 ...	...	.....	5.5
1157	γ Delphini (1st) ..	July 17 ..		20 39 58.04	+ 2.786	74 23 ...	...	— 12.89	...
	.....	Sept. 12 ..		57.73	.....	.....	...	.....	...
	.....	30 ..		.....	.....	31.4	...	.....	6.0
1158	ϵ Cygni	Aug. 29 ..		20 40 23.27	+ 2.396	56 34 ...	...	.....	...
	.....	Sept. 22 ..		23.25	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1159	.....	Sept. 16 ..		20 40 ...	-20.163	2 30 55.2	...	- 12.96	8.0
	.....S.P.	March 7 3		57.37	.....	.....	...	.....	8.0
1160*	7217 B.A.C.	Aug. 29 ..		20 41 ...	- 2.128	11 4 55.8	...	- 12.99	7.5
	.....	Sept. 5 ..		.....	.....	57.5	...	.....	7.7
	.....	30 3		32.20	.....	.....	...	.....	7.0
1161	η Cephei	Sept. 3 ..		20 42 21.36	+ 1.219	28 43 ...	...	- 13.05	...
	.....	Oct. 1 ..		.....	.....	9.6	...	.....	...
1162	ω Capricorni	July 17 ..		20 43 13.51	+ 3.598	117 27 ...	...	- 13.11	...
	.....	Sept. 2 ..		13.34	.....	.....	...	.....	5.0
	.....	4 ..		.....	.....	15.9	...	.....	...
	.....	10 ..		.....	.....	15.8	...	.....	...
1163	56 Cygni	Aug. 14 ..		20 45 0	.....	46 28 51.8	...	- 13.22	...
	.....	Sept. 22 ..		.....	.....	51.1	...	.....	...
	.....S.P.	March 13 ..		.....	.....	50.3	...	.....	...
1164	32 Vulpeculæ	Sept. 3 ..		20 48 25	.....	62 29 ...	21.3	- 13.45	...
	.....	30 ..		.....	.....	15.8	...	.....	...
	.....	Oct. 13 ..		.....	.....	16.6	...	.....	...
1165	7262 B.A.C.	Sept. 2 ..		20 49 11.33	+ 1.713	36 2 0.2	...	- 13.50	7.3
	.....	4 ..		11.44	.....	.....	...	.....	8.0
	.....	5 ..		11.31	.....	.....	...	.....	7.0
	.....	16 ..		.....	.....	0.3	...	.....	7.5
	.....S.P.	Feb. 16 ..		.....	.....	3.5	...	.....	7.3
	.....	March 27 ..		.....	.....	2.3	...	.....	7.3
1166	18 Delphini	Oct. 10 ..		20 51 30	.....	79 42 48.4	...	- 13.65	...
1167	1 Equulei (2d) ...	Aug. 14 ..		20 51 ...	+ 3.008	86 15 20.2	...	- 13.67	...
	.....	Sept. 3 ..		53.50	.....	.....	...	.....	7.5
1168	11 Aquarii	Aug. 14 ..		20 52 58.73	+ 3.162	95 17 ...	...	.....	6.3
	.....	Oct. 10 ..		58.76	.....	.....	...	.....	...
1169	7300 B.A.C.	Sept. 4 ..		20 54 50.33	+ 3.536	115 38 21.7	...	- 13.86	7.7?
	.....	5 ..		50.07	.....	.....	...	.....	7.7
	.....	22 ..		.....	.....	16.7	...	.....	8.0?

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1170	.....	Sept. 10 ..	20 56 ...	— 8.188	4 52 31.2	...	— 13.95	8.3
	.....	30 4	19.54	.....	.....	...	.....	8.0
	.....S.P.	March 7 .	.....	.....	31.5	...	.....	8.0
1171	7320 B.A.C.	Aug. 29 ..	20 57 29.66	+ 2.322	51 54 34.4	...	— 14.03	6.3	
	.....	Sept. 2 ..	29.69	.....	.....	...	.....	6.5
	.....	13 ..	29.74	.....	.....	...	.....	...
	.....	16 ..	29.79	.....	.....	...	.....	6.7
	.....	Oct. 13 ..	.....	.....	36.2	...	.....	...
1172	7325 B.A.C.	Aug. 14 ..	20 58 29.25	+ 3.432	110 45 13.0	...	— 14.09	6.7	
	.....	15 ..	29.38	.....	9.5	...	.....	...
	.....	Oct. 18 ..	.....	.....	9.8	...	.....	...
1173	61 Cygni (1st) ...	Aug. 29 ..	21 0 26.81	+ 2.673*	51 57 ...	...	.....	5.7
	.....	Sept. 2 ..	26.67	.....	.....	...	.....	5.7
	.....	3 ..	26.79	.....	.....	...	.....	5.5
	.....	4 ..	26.69	.....	.....	...	.....	...
	.....	13 ..	26.72	.....	.....	...	.....	...
1174	61 Cygni (2d)	Sept. 16 ..	21 0 28.16	+ 2.679*	51 57 ...	...	.....	6.3
	.....	22 ..	28.34	.....	.....	...	.....	5.7
	.....	Oct. 10 ..	28.16	.....	.....	...	.....	...
	.....	13 ..	28.10	.....	.....	...	.....	...
1175	27 Capricorni	Aug. 14 ..	21 1 18.84	+ 3.435	111 8 ...	...	.....	6.3
	.....	15 ..	18.66	.....	.....	...	.....	...
1176	41030 Lalande ...	Aug. 29 ..	21 2 28.18	+ 2.343	52 3 ...	...	.....	...
	.....	Sept. 2 ..	28.04	.....	.....	...	.....	7.7
	.....	3 ..	28.26	.....	.....	...	.....	7.5
1177	γ Equulei	Sept. 22 ..	21 3 20	.....	80 26 44.5	...	— 14.39	...
	.....	Oct. 13 ..	.....	.....	46.2	...	.....	...
	.....	17 ..	.....	.....	45.5	...	.....	...
	.....	21 ..	.....	.....	44.7	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1178	ζ Cygni	Aug. 29 ..	21	6 ..	+2.548*	60 21 41.7	...	-14.53*	...
	.....	Sept. 2 ..		48.61	.....	.....	...	.....	...
	.....	4 ..		48.61	.....	.....	...	.....	...
	.....	5 ..		48.47	.....	41.3	...	.....	...
	.....	12 ..		48.46	.....	.....	...	.....	...
	.....	13 ..		48.50	.....	.....	...	.....	...
	.....	22 ..		48.55	.....	.....	...	.....	...
	.....	Oct. 13 ..		48.43	.....	.....	...	.....	...
1179	δ Equulei	Sept. 3 ..	21	7 30	.....	80 34 ..	30.2	-14.64	...
	.....	4 ..		.....	.....	.....	28.0	.....	...
	.....	10 ..		.....	.....	27.0	...	.....	...
	.....	Oct. 10 ..		.....	.....	27.0	...	.....	...
1180	7387 B.A.C.	Aug. 14 5	21	9 7.29	+1.532	30 29 ..	...	-14.74	...
	.....	Sept. 16 5		7.20	.....	.....	...	.....	6.7
	.....	Oct. 10 5		7.06	.....	.....	...	.....	...
	.....	13 ..		.....	.....	43.3	...	.....	...
1181*	υ Cygni	Sept. 4 ..	21	11 59.78	+2.461	55 42 ..	...	-14.90	...
	.....	5 ..		59.81	.....	.....	...	.....	4.5
	.....	Oct. 21 ..		.....	.....	19.4	...	.....	5.0
1182	ε Capricorni	Aug. 14 ..	21	14 13.55	+3.350	107 26 44.7	...	-15.04	...
	.....	15 ..		13.31	.....	39.6	...	.....	...
1183	α Cephei	Sept. 12 ..	21	15 8.22	+1.439*	28 1 ..	...	-15.09*	...
	.....	13 ..		8.21	.....	.....	...	.....	...
	.....	Oct. 1 ..		.....	.....	24.7	...	.....	...
	.....	10 ..		8.47	.....	.....	...	.....	...
	.....	17 ..		.....	.....	22.7	...	.....	...
1184	ι Pegasi (1st)	Sept. 4 ..	21	15 23.80	+2.765	70 49 ..	...	.....	9.5
	.....	5 ..		23.65	.....	.....	...	.....	9.7
	.....	16 ..		23.89	.....	.....	...	.....	9.5
1185	ι Pegasi (2d)	Sept. 10 ..	21	15 25	.....	70 48 34.2	...	-15.10	...
	.....	Oct. 18 ..		.....	.....	32.1	...	.....	...
1186	7438 B.A.C.	Sept. 30 6	21	17 11.96	-0.534	13 36 ..	...	.....	6.0

No.	Star.	Date of Obs.	No. of Mises.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1187	19 Aquarii.....	Sept. 2	..	21 17 28.54	+ 3.231	100 22 ...	...	.....	6.0
	.....	3	..	28.64	.....	.....	...	.....	6.0
1188	7434 B.A.C.	Sept. 4	..	21 17 30	.....	115 51 20.9	...	- 15.22	8.0
1189	ζ Capricornii.....	Aug. 14	..	21 18 26.43	+ 3.440	113 1 58.6	...	- 15.28	...
	.....	15	..	26.31	.....	55.1	...	.....	...
	.....	Oct. 21	..	.....	.....	55.3	...	.....	...
1190	36 Capricorni b...	Sept. 2	..	21 20 30.42	+ 3.426	112 26 ...	...	.....	...
	.....	3	..	30.53	.....	.....	...	.....	5.0
1191	35 Vulpeculæ.....	Sept. 3	..	21 21 ...	+ 2.637	63 0 ...	58.6	- 15.44	...
	.....	5	..	19.25	.....	.....	...	.....	6.0
	.....	22	..	19.42	.....	.....	...	.....	...
	.....	Oct. 10	..	19.33	...	.....	...	.....	...
1192	7468 B.A.C.	Aug. 29	..	21 22 0.07	+ 1.972	37 43 31.2	...	- 15.48	...
	.....	Sept. 2	..	.....	.....	31.0	...	.....	...
	.....	4	..	0.06	.....	.....	...	.....	6.7
	.....	8	..	.....	.....	30.5	...	.....	...
1193	71 Cygni g	Oct. 10	5	21 24 8.17	+ 2.204	44 5 35.1	...	- 15.59	...
	.....	17	..	.....	.....	32.7	...	.....	...
	.....	18	..	8.08	.....	.....	...	.....	...
	.....	24	..	.....	.....	32.4	...	.....	...
1194	7484 B.A.C.	Sept. 4	..	21 24 ...	- 4.444	6 21 12.9	...	.....	7.3
	.....	16	..	55.73	.....	.....	...	.....	6.7
1195	7485 B.A.C.	Aug. 15	..	21 25 42.59	+ 3.324	106 50 ...	...	.....	...
	.....	Sept. 5	..	42.65	.....	.....	...	.....	7.7
1196	β Cephei.....	Aug. 29	5	21 26 47.25	+ 0.804*	20 4 ...	...	- 15.70*	...
	.....	Sept. 12	..	47.02	.....	.....	...	.....	...
	.....	13	..	46.85	.....	15.8	...	.....	...
	..... S.P. March	8	..	.....	.....	.....	14.5	.....	...
1197	7494 B.A.C.	Sept. 4	..	21 26 53.10	+ 1.705	31 13 ...	...	- 15.74	6.7
	.....	Oct. 18	..	.....	.....	7.1	...	.....	...
	.....	21	..	.....	.....	3.6	...	.....	7.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1198	8 Piscis Australis.	Aug. 15 ..	21	27 50	.....	116 48 35.8	...	— 15.79	...
	.....	Sept. 10 ..		.....	.....	39.9	...	.....	...
1199	72 Cygni	Aug. 29 ..	21	28 ..	+ 2.434	52 6 32.8	...	— 15.85	...
	.....	Sept. 22 ..		53.73	.....	.....	...	.....	5.5
1200*	ξ Aquarii	Aug. 15 ..	21	30 5.11	+ 3.194	98 29 ...	...	— 15.92	...
	.....	Sept. 16 ..		.....	.....	.....	52.7	.....	...
1201	7518 B.A.C.	Sept. 5 ..	21	30 32.90	+ 2.987	84 1 ...	...	.....	6.7
1202	5 Pegasi.....	Oct. 10 ..	21	31 1.16	+ 2.798	71 20 ...	...	.....	..
1203	24 Aquarii.....	Oct. 18 ..	21	32 5.73	+ 3.082	90 42 ...	...	.....	6.5?
1204	7533 B.A.C.	Sept. 4 ..	21	33 ..	+ 1.592	28 20 52.6	...	— 16.09	7.3
	.....	22 ..		20.64	.....	52.5	...	.....	...
1205	42 Capricorni.....	Sept. 4 ..	21	33 42.91	+ 3.280	104 41 ...	...	.....	5.5
	.....	13 4		42.68	.....	.....	...	.....	...
1206*	κ Capricorni	Sept. 16 ..	21	34 36.80	+ 3.353	109 31 ...	...	— 16.15	...
	.....	Oct. 10 ..		.....	.....	12.5	...	.....	...
1207	7553 B.A.C.	Sept. 5 ..	21	35 30.77	+ 2.930	79 49 ...	...	— 16.20	6.3
	.....	8 ..		.....	.....	46.8	...	.....	...
1208	ε Pegasi.....	Sept. 2 ..	21	37 ..	+ 2.948*	80 46 ...	61.1	— 16.29*	...
	.....	4 ..		6.83	.....	.....	...	.....	...
	.....	5 ..		.....	.....	.....	59.4	.....	...
	.....	10 ..		.....	.....	59.1	...	.....	...
	.....	30 ..		.....	.....	.....	60.6	.....	...
	.....	Oct. 18 ..		6.80	.....	.....	...	.....	...
	.....	21 ..		6.77	.....	.....	...	.....	...
1209	7564 B.A.C.....S.P.	March 27 ..	21	37 10	.....	19 20 25.4	...	— 16.28	6.7
1210	7562 B.A.C.	Sept. 16 ..	21	37 14.37	+ 3.205	99 42 ...	...	.....	7.3
1211	μ Cygni.....	Oct. 10 ..	21	37 42.13	+ 2.656	61 54 ...	...	— 16.31	...
	.....	18 ..		.....	.....	19.5	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1212	μ Cygni (2d).....	Oct. 21 ..		21 37 43	.....	61 54 21.3	...	- 16.31	...
1213	δ Capricorni	Aug. 15 ..		21 39 55.7	+ 3.304	106 47 ...	...	.....	...
1214	7584 B.A.C.	Oct. 24 ..		21 39 25	.....	65 4 41.4	...	- 16.40	7.5
1215	7586 B.A.C.	Sept. 22 ..		21 39 50.95	+ 2.715	65 6 ...	...	- 16.42	...
		Oct. 25 ..		.....	.....	5.7	...	.....	7.0
1216	7590 B.A.C.	Oct. 18 ..		21 40 13.71	+ 2.844	73 28 ...	...	.....	7.5?
1217*	78 Draconis	Sept. 13 ..		21 41 ...	+ 0.776	18 20 23.0	...	- 16.49	...
		Oct. 1 ..		.....	.....	23.6	...	.....	...
		21 5		17.58	.....	.....	...	.....	5.7
		S.P. Mareh 26 ..		.....	.....	22.2	...	.....	...
1218	7608 B.A.C.	Aug. 15 ..		21 43 41.73	+ 3.334	109 17 30.6	...	- 16.61	...
		Sept. 4 ..		41.81	.....	30.8	...	.....	{ 6.7 6.7
1219	16 Pegasi	Sept. 5 ..		21 46 ...	+ 2.725	64 44 63.2	...	- 16.75	...
		8 ..		.....	.....	61.2	...	.....	...
		30 ..		30.72	.....	.....	...	.....	5.3
		Oct. 18 ..		.....	.....	59.6	...	.....	...
1220	7628 B.A.C.	Aug. 15 ..		21 46 39.00	+ 3.136	94 57 ...	...	.....	...
		Oct. 18 5		38.96	.....	.....	...	.....	6.5
		21 ..		39.10	.....	.....	...	.....	6.0
		24 ..		38.92	.....	.....	...	.....	6.3
1221	7636 B.A.C.	Sept. 10 ..		21 48 15	.....	34 27 54.4	...	- 16.83	...
		S.P. April 1 ..		.....	.....	56.9	...	.....	...
		4 ..		.....	.....	57.1	...	.....	...
1222	7642 B.A.C.	Oct. 21 ..		21 49 ...	+ 2.109	36 44 54.8	...	- 16.91	7.0
		24 ..		.....	.....	55.5	...	.....	7.7
		31 ..		52.48	.....	.....	...	.....	...
		S.P. March 27 ..		.....	.....	54.2	...	.....	6.5
1223	7650 B.A.C.	Aug. 15 ..		21 50 40.24	+ 3.149	96 6 19.9	...	- 16.95	...
		Sept. 30 ..		40.38	.....	.....	...	.....	6.7
		Oct. 24 ..		40.29	.....	.....	...	.....	7.0
		25 ..		.....	.....	18.9	...	.....	7.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1224*	Weisse xxi. 1240.	Aug. 15 ..		21 53 19.33	+ 3.243	103 42 ...	...	- 17.07	...
	.....	Sept. 5 ..		19.24	.....	46.4	...	.....	8.0
	.....	8 ..		.....	.....	44.8	...	.....	7.5
	.....	Oct. 21 ..		19.23	.....	.....	...	.....	8.0
1225	20 Pegasi.....	Sept. 30 ..		21 54 4.58	+ 2.918	77 34 ...	4.4	- 17.10	6.0
	.....	Oct. 17 ..		.....	.....	3.0	...	.....	...
	.....	18 ..		.....	.....	4.3	...	.....	...
	.....	30 ..		.....	.....	3.7	...	.....	...
	.....	31 ..		4.47	.....	.....	...	.....	...
1226	7668 B.A.C.	Sept. 13 ..		21 54 ...	+ 2.002	33 1 47.2	...	- 17.13	...
	.....	Oct. 18 ..		33.83	.....	.....	...	.....	7.0?
1227	7676 B.A.C.	Oct. 24 ..		21 56 35	.....	37 48 38.1	...	- 17.22	6.7
	.....	25 ..		.....	.....	37.1	...	.....	...
1228	16 Cephei..... S.P.	March 14 ..		21 57 10	.....	17 30 18.5	...	- 17.24	...
	.....	26 ..		.....	.....	18.0	...	.....	...
1229	32 Aquarii.....	Oct. 21 ..		21 57 ...	+ 3.091	91 36 5.0	...	- 17.25	...
	.....	25 ..		23.03	.....	.....	...	.....	5.7
	.....	31 ..		.....	.....	4.6	...	.....	...
1230	α Aquarii.....	Sept. 10 3		21 58 23.04	+ 3.082*	91 1 ...	...	.....	...
	.....	Oct. 17 ..		23.28	.....	.....	...	.....	...
1231	ε Aquarii.....	Aug. 15 ..		21 58 39.46	+ 3.247	104 33 57.8	...	- 17.31	...
	.....	Oct. 31 ..		39.46	.....	.....	...	.....	...
1232	15 Cephei.....	Sept. 16 5		21 59 12.59	+ 1.948	30 52 ...	...	- 17.33	6.5
	.....	Oct. 28 ..		12.50	.....	.....	...	.....	7.0
	..... S.P.	April 4 ..		.....	.....	59.0	...	.....	...
1233	18 Cephei.....	Oct. 10 ..		21 59 ...	+ 1.787	27 34 48.1	...	- 17.35	...
	.....	18 ..		34.24	.....	.....	...	.....	5.7?
	..... S.P.	March 13 ..		.....	.....	48.5	...	.....	...
	.....	April 1 ..		.....	.....	49.4	...	.....	...
1234	ξ Cephei (1st)....	Sept. 8 ..		21 59 37	.....	26 4 17.8	...	- 17.35	...
1235	ξ Cephei (2d)	Oct. 21 ..		21 59 37.33	+ 1.702	26 4 ...	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1236	7705 B.A.C.	Sept. 10 ..	22	0 ...	+ 2.420	45 41 4.6	...	- 17.38	...
	.....	Oct. 10 ..		12.21	.....	.....	...	.....	...
	.....	18 ..		.....	.....	3.7	...	.....	...
1237	ε Pegasi	Sept. 13 ..	22	0 18.56	+ 2.765	65 21 ...	...	.....	...
1238	19 Cephei	Oct. 24 ..	22	0 42.97	+ 1.843	28 25 ...	...	.....	5.5
1239	7715 B.A.C.	Aug. 15 ..	22	1 47.24	+ 3.438	118 59 ...	...	- 17.45	...
	.....	Oct. 28 ..		.....	.....	52.6	...	.....	...
1240	7720 B.A.C.	Sept. 30 ..	22	2 51.54	+ 3.125	94 35 ...	...	- 17.49	7.0
	.....	Oct. 25 ..		.....	.....	50.6	...	.....	...
1241	θ Pegasi	Sept. 16 ..	22	2 55	.....	84 30 ...	31.7	- 17.49	...
1242	7726 B.A.C.	Oct. 18 ..	22	3 3.16	+ 3.129	94 59 ...	...	.....	6.7
	.....	31 ..		3.16	.....	.....	...	.....	...
1243*	7732 B.A.C.	Oct. 25 3	22	3 9.82	- 1.676	7 49 ...	...	.....	7.5
1244*	7735 B.A.C.	Oct. 25 3	22	3 16.48	- 1.672	7 49 ...	...	.....	8.0
1245	7738 B.A.C.	Sept. 13 5	22	4 6.40	+ 2.030	31 51 ...	...	.....	7.3
1246	7744 B.A.C.	Aug. 15 ..	22	5 13.99	+ 3.133	95 25 ...	...	- 17.59	...
	.....	Oct. 21 ..		.....	.....	43.8	...	.....	7.0
	.....	24 ..		.....	.....	42.2	...	.....	7.5
1247	7745 B.A.C.	Oct. 21 ..	22	5 38.78	+ 3.382	115 54 ...	...	.....	...
1248	7753 B.A.C.	Sept. 29 ..	22	6 25.97	+ 2.645	56 6 ...	...	.....	6.3?
1249*	λ Cephei	Oct. 28 ..	22	6 37.59	+ 2.028	31 17 ...	...	- 17.65	5.7
	.....	30 ..		.....	.....	41.5	...	.....	...
1250	7754 B.A.C.	Sept. 13 ..	22	6 40	.....	33 52 31.8	...	- 17.65	...
	.....S.P.	March 26 ..		.....	.....	33.7	...	.....	5.7
	.....	27 ..		.....	.....	32.6	...	.....	6.0
1251	7760 B.A.C. (2d) ..	Oct. 31 ..	22	7 21.56	+ 1.391	20 34 ...	...	- 17.68	...
	.....S.P.	March 8 ..		.....	.....	43.0	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1252	7761 B.A.C.	Oct. 25 ..	25 ..	22 7 25	.....	18 35 50.2	...	— 17.68	...
	.....	31 ..	31 ..	.....	.....	51.8	...	.....	...
1253	ε Cephei	Sept. 24 ..	24 ..	22 9 45	.....	33 40 24.9	...	— 17.78	...
	.....	Oct. 18 ..	18 ..	.....	.....	23.0	...	.....	...
	.....S.P.	April 4 ..	4 ..	.....	.....	26.4	...	.....	...
1254	7782 B.A.C.	Sept. 10 ..	10 ..	.....	+ 2.149	33 29 49.7	...	— 17.84	...
	.....	13 ..	13 ..	22 11 15.13	.....	.....	...	.....	6.0
	.....	16 ..	16 ..	14.92	.....	.....	...	.....	6.0
	.....	29 ..	29 ..	15.00	.....	.....	...	.....	6.5
	.....	30 ..	30 ..	14.75	.....	.....	...	.....	6.3
	.....	Oct. 24 ..	24 ..	.....	.....	48.8	...	.....	7.0
	.....	Nov. 4 ..	4 ..	.....	.....	49.3	...	.....	...
1255	γ Aquarii	Sept. 10 ..	10 ..	22 14 13.06	+ 3.094	92 6 ...	...	— 17.96	...
	.....	13 ..	13 ..	.....	.....	38.5	...	.....	...
	.....	16 ..	16 ..	.....	.....	.....	39.7	.....	...
	.....	Nov. 4 ..	4 ..	13.05	.....	.....	...	.....	...
1256*	Weisse xxii. 299 .	Oct. 24 ..	24 ..	22 14 56.79	+ 2.998	82 49 ...	...	— 17.99	8.7
	.....	25 5	5	57.09	.....	.....	...	.....	9.0
	.....	28 ..	28 ..	56.90	.....	45.0	...	.....	8.7
	.....	Nov. 5 ..	5 ..	.....	.....	45.9	...	.....	8.5
	.....								9.0
1257	49 Aquarii	Oct. 21 ..	21 ..	22 15 29.05	+ 3.353	115 29 ...	...	— 18.01	...
	.....	Nov. 6 ..	6 ..	29.01	.....	18.8	...	.....	6.0

1258	33 Pegasi	Oct. 21 ..	21 ..	22 16 45	.....	69 52 39.0	...	— 18.06	7.0
	.....	25 ..	25 ..	.....	.....	37.7	...	.....	...
1259	β Lacertæ	Sept. 10 ..	10 ..	22 17 54.26	+ 2.347	38 29 ...	...	— 18.10	...
	.....	16 ..	16 ..	54.16	.....	.....	...	.....	...
	.....	22 ..	22 ..	54.23	.....	.....	...	.....	...
	.....	24 ..	24 ..	54.13	.....	.....	...	.....	...
	.....	29 ..	29 ..	54.21	.....	.....	...	.....	...
	.....	30 ..	30 ..	.....	.....	28.2	...	.....	...
	.....	Oct. 18 ..	18 ..	.....	.....	28.2	...	.....	...
	.....	31 ..	31 ..	54.13	.....	.....	...	.....	...
	.....	Nov. 4 ..	4 ..	54.27	.....	.....	...	.....	...
	.....S.P.	March 29 ..	29 ..	.....	.....	29.2	...	.....	...
	.....	April 4 ..	4 ..	.....	.....	29.3	...	.....	...

No.	Star.	Date of Obs.	No. of Wires	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1260	53 Aquarii (1st) ..	Oct. 21 ..	21	22 18 44.85	+ 3.251	107 28 ...	...	.....	...
	.....	25 ..		44.81	.....	.....	...	.....	7.0
1261	34 Pegasi	Sept. 24 ..	24	22 19 ...	+ 3.035	86 20 20.6	...	- 18.15	...
	.....	Oct. 18 ..		17.47	.....	.....	...	.....	6.3
	.....	24 ..		.....	.....	25.9	...	.....	6.3
	.....	Nov. 5 ..		17.74	.....	.....	...	.....	6.0
1262	35 Pegasi	Sept. 30 ..	30	22 20 34.02	+ 3.033	86 1 ...	...	.....	5.0
1263	ζ Aquarii (2d)	Oct. 28 ..	28	22 21 24.98	+ 3.079	90 45 ...	...	- 18.23	4.7
	.....	30 ..		.....	.....	23.0	...	.....	...
1264	ζ Aquarii (1st) ...	Oct. 25 ..	25	22 21 25.10	+ 3.079	90 45 ...	...	.....	5.0
1265	36 Pegasi	Oct. 31 ..	31	22 21 56.90	+ 2.990	81 36 17.6	...	- 18.25	6.5?
	.....	Nov. 6 ..		.....	.....	16.5	...	.....	...
1266	7835 B.A.C.	Nov. 5 ..	5	22 22 19.49	+ 3.207	103 39 ...	...	.....	6.5
1267	37 Pegasi	Nov. 6 ..	6	22 22 41.07	+ 3.036	86 18 ...	...	.....	6.3
1268	σ Aquarii	Sept. 13 ..	13	22 23 1.47	+ 3.183	101 24 46.9	...	- 18.29	...
1269	38 Pegasi	Nov. 5 ..	5	22 23 30	.....	58 9 45.2	...	- 18.30	...
1270	5 Lacertæ	Sept. 22 ..	22	22 23 32.16	+ 2.487	43 1 ...	...	- 18.30	...
	.....	Oct. 25 ..		.....	.....	42.7	...	.....	...
1271	3820 Gr. S.P.	April 1 ..	1	22 24 10	.....	4 37 ...	5.7	- 18.38*	...
1272	3824 Gr.	Sept. 13 7	7	22 24 39.10	- 3.756*	4 30 ...	...	.....	6.7
	.....	16 3	3	38.74	.....	.....	...	.....	6.5
	.....	24 3	3	.....	.....	.....	...	.....	6.7
	.....	Oct. 18 3	3	38.19	.....	.....	...	.....	7.0
	.....	21 3	3	37.86	.....	.....	...	.....	7.0
	.....	24 3	3	37.96	.....	.....	...	.....	6.7
1273	α Lacertæ	Sept. 10 ..	10	22 25 21.94	+ 2.443	40 27 ...	...	- 18.37	...
	.....	29 4	4	21.87	.....	.....	...	.....	...
	.....	Oct. 28 ..		.....	.....	23.5	...	.....	...
	.....	31 ..		21.85	.....	.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1274	39 Pegasi	Sept. 30 ..		22 25 38.16	+ 2.882	70 31 ..	...	.....	6.7
	.....	Nov. 4 ..		38.12	.....	.....	...	.....	7.0
1275	u Aquarii	Sept. 24 ..		22 26 ..	+ 3.279	111 26 39.0	...	- 18.42	...
	.....	Oct. 18 ..		.....	.....	40.6	...	.....	...
	.....	25 ..		49.00	.....	.....	...	.....	...
	.....	Nov. 4 ..		.....	.....	37.7	...	.....	...
	.....	5 ..		49.23	.....	.....	...	.....	5.3
1276	7865 B.A.C.	Sept. 22 ..		22 27 14.14	+ 3.073	90 8 ..	...	- 18.44	6.7
	.....	Oct. 21 ..		.....	.....	37.4	...	.....	7.5
	.....	Nov. 6 ..		.....	.....	36.5	...	.....	7.5
1277	η Aquarii	Sept. 16 ..		22 28 0	.....	90 51 ..	31.7	- 18.46	...
1278	7876 B.A.C.	Sept. 22 ..		22 28 ..	+ 1.711	20 49 52.8	...	- 18.49	...
	.....	30 ..		.....	.....	54.6	...	.....	...
	.....	Oct. 28 ..		52.66	.....	.....	...	.....	5.7
1279	.....S.P.	March 26 3		22 29 8.91	- 2.125	5 40 ..	...	.....	...
1280	7878 B.A.C.	Oct. 28 5		22 29 12.98	+ 1.682	20 22 ..	...	- 18.50	6.0
	.....S.P.	April 4 ..		.....	.....	.....	6.9	.....	...
1281	8 Lacertæ (1st)...	Oct. 24 ..		22 29 27.90	+ 2.657	51 6 ..	...	- 18.51	7.3
	.....	31 ..		.....	.....	57.9	...	.....	...
	.....	Nov. 5 ..		.....	.....	55.4	...	.....	7.3
1282	8 Lacertæ (2d) ...	Nov. 4 ..		22 29 28.33	+ 2.657	51 7 ..	...	.....	6.3
1283	7881 B.A.C.	Oct. 24 ..		22 29 ..	+ 1.090	14 30 56.9	...	- 18.52	...
	.....	25 ..		.....	.....	54.9	...	.....	...
	.....	31 ..		43.94	.....	.....	...	.....	5.7?
1284	.....S.P.	March 29 3		22 30 39.44	- 7.902	2 39 3.2	...	- 18.55	7.3
	.....	April 1 3		38.45	.....	.....	...	.....	7.5
	.....	4 3		38.98	.....	.....	...	.....	7.3
	.....	5 3		39.28	.....	.....	...	.....	7.3
	.....	12 3		39.33	.....	.....	...	.....	...
	.....	18 3		39.32	.....	.....	...	.....	7.5

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1285	7891 B.A.C.	Oct. 25	..	22 31 42.77	+ 3.351	119 4 ...	...	.....	...
		Nov. 6	5.	42.84	.....	.....	...	.....	...
1286	31 Cephei	Sept. 13	..	22 32 ...	+ 1.447	17 6 15.7	...	— 18.60	...
		Oct. 21	5	12.39	.....	.....	...	.....	5.5
		.....	30	.....	.....	14.2	...	.....	...
		..... S.P. Feb. 14	..	.....	.....	15.6	...	.....	...
1287	11 Lacertæ	Oct. 10	6	22 34 12.40	+ 2.607	46 28 ...	...	— 18.67	...
		.....	24	12.44	.....	.....	...	.....	5.0
		..... Nov. 4	..	.....	.....	26.3	...	.....	...
		.....	6	.....	.....	27.5	...	.....	...
1288	ζ Pegasi.....	Sept. 24	..	22 34 16.87	+ 2.987*	79 55 7.2	...	— 18.67*	...
		Oct. 13	..	16.88	.....	.....	...	.....	...
		.....	18	16.87	.....	.....	...	.....	...
1289	η Pegasi.....	Sept. 13	..	22 36 15.46	+ 2.802	60 31 ...	...	— 18.73	...
		.....	22	15.60	.....	.....	...	.....	...
		Oct. 31	..	15.32	.....	.....	...	.....	...
		Nov. 5	..	.....	.....	48.4	...	.....	...
1290	45 Pegasi.....	Nov. 6	..	22 38 28.15	+ 2.915	71 23 ...	...	.....	6.5
1291	ξ Pegasi	Oct. 13	..	22 39 29.94	+ 2.979	78 34 ...	...	.....	...
		.....	24	30.01	.....	.....	...	.....	4.7
		.....	25	30.06	.....	.....	...	.....	4.5
		Nov. 4	..	30.10	.....	.....	...	.....	5.0
1292	68 Aquarii γ^2	Sept. 24	..	22 39 50	.....	110 21 45.6	...	— 18.84	...
		Oct. 28	..	.....	.....	47.9	...	.....	...
1293	7950 B.A.C.	Oct. 24	..	22 40 5	.....	44 32 25.7	...	— 18.85	7.3
		.....	31	.....	.....	27.5	...	.....	...
1294	7951 B.A.C. (1st) .	Oct. 21	..	22 40 24.48	+ 3.112	94 58 ...	...	.....	8.3
		Nov. 5	..	24.54	.....	.....	...	.....	8.0
1295	7951 B.A.C. (centre)	Sept. 13	..	22 40 25	.....	94 58 28.5	...	— 18.86	...
1296	7951 B.A.C. (2d) ..	Sept. 30	..	22 40 24.57	+ 3.112	94 58 ...	...	.....	7.3

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.		Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
							D.	R.		
				h. m. s.	s.	° ' "	"	"		
1297	τ^2 Aquarii.....	Nov. 6 ..		22 41 57.97	+ 3.187	104 21 6.5	...	— 18.90	...	
1298	μ Pegasi	Sept. 24 ..		22 43 3.32	+ 2.878	66 9 ...	...	.....	...
	.....	Oct. 13 ..		3.36	.....	.....	...	.....	...
	.....	17 ..		3.30	.....	.....	...	.....	...
1299	ϵ Cephei.....	Sept. 30 5		22 44 33.58	+ 2.126	24 33 ...	...	— 18.98	...
	.....	Oct. 17 ..		.....	.....	22.7	...	.....	...
	.....	21 ..		.....	.....	.....	23.3	.....	...
	.....	24 ..		33.89	.....	.....	...	.....	...
	.....	30 ..		.....	.....	23.9	...	.....	...
	.....	Nov. 4 ..		34.03	.....	.....	...	.....	...
	.....	5 ..		.....	.....	23.5	...	.....	...
	.....	S.P. Feb. 14 ..		.....	.....	22.4	...	.....	...
	.....	March 29 ..		.....	.....	20.6	...	.....	...
1300	15 Lacertæ	Sept. 16 ..		22 45 32.66	+ 2.680	47 27 ...	...	— 19.01	...
	.....	30 ..		.....	.....	6.5	...	.....	...
	.....	Oct. 21 ..		32.72	.....	.....	...	.....	5.3
	.....	25 ..		32.79	.....	5.0	...	.....	5.3
	.....	Nov. 4 ..		.....	.....	4.9	...	.....	...
1301	δ Aquarii	Sept. 13 ..		22 47 0.37	+ 3.196	106 35 5.7	...	— 19.05	...	
	.....	Nov. 6 ..		0.37	.....	5.3	...	.....	...
1302	77 Aquarii.....	Sept. 24 ..		22 47 ...	+ 3.200	107 2 2.9	...	— 19.05	...	
	.....	Oct. 18 ..		8.00	.....	.....	...	.....	6.5
	.....	Nov. 5 ..		8.32	.....	.....	...	.....	6.0
1303	Fomalhaut.....	Oct. 28 ..		22 49 40	.....	120 23 2.4	...	— 18.95*	...
	.....	31 ..		.....	.....	2.3	...	.....	...
1304	51 Pegasi.....	Oct. 21 ..		22 50 23.73	+ 2.927	70 0 ...	...	— 19.14	6.3
	.....	Nov. 4 ..		23.83	.....	.....	...	.....	6.5
	.....	5 ..		.....	.....	5.3	...	.....	...
1305	8002 B.A.C.	Oct. 18 ..		22 51 42.62	+ 3.301	120 14 ...	...	.....	6.5?
	.....	Nov. 5 ..		42.94	.....	.....	...	.....	...
1306	8004 B.A.C.	Oct. 24 ..		22 52 0.89	+ 3.169	103 50 ...	...	— 19.18	7.0
	.....	25 ..		.....	.....	29.6	...	.....	...
	.....	Nov. 6 ..		0.53	.....	.....	...	.....	6.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Preces- sion in R.A.	Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
						h.	m.		
1307	2 Piscium	Sept. 30	..	22 52 47.1	+ 3.071	89 48	...	— 19.18	...
	.....	Oct. 30	..	.....	.....	18.9	...	.....	6.0
	.....	Nov. 6	..	.....	.....	15.9	...	.....	...
1308*	3 Piscium	Oct. 25	..	22 53 14.84	+ 3.076	90 35	...	.....	7.0
1309	8026 B.A.C.	Sept. 24	..	22 55 ...	— 0.230	6 25 28.9	...	— 19.26	...
	.....	Oct. 30	3	24.13	.....	.....	...	.....	5.0
	.....	Nov. 4	3	24.14	.....	.....	...	.....	4.7
	.....	12	..	.....	.....	28.9	...	.....	...
1310*	β Piscium	Nov. 5	..	22 56 32.94	+ 3.052	86 57	...	.....	...
	.....	6	..	32.74	.....	.....	...	.....	...
1311	β Pegasi	Oct. 18	..	22 56 47.94	+ 2.884	62 41	...	— 19.30	...
	.....	Nov. 4	..	.....	.....	49.5	...	.....	...
	.....	5	..	.....	.....	46.6	...	.....	...
	.....	6	..	.....	.....	49.1	...	.....	...
1312	α Pegasi	Sept. 30	..	22 57 35.38	+ 2.983*	75 34	...	.....	...
	.....	Oct. 17	..	35.31	.....	.....	...	.....	...
1313	83 Aquarii h^1	Oct. 24	..	22 57 39.20	+ 3.126	98 28	...	.....	6.5
1314*	8048 B.A.C.	Oct. 28	..	22 58 ...	+ 1.102	9 59 39.7	...	— 19.34	...
	.....	30	5	45.50	.....	.....	...	.....	7.3
1315	87 Aquarii h^1	Oct. 25	..	22 59 42.33	+ 3.124	98 28 10.7	...	— 19.37	8.0 (...)
1316	5 Andromedæ	Oct. 30	..	23 1 ...	+ 2.688	41 29 16.0	...	— 19.40	...
	.....	31	..	.....	.....	16.0	...	.....	...
	.....	Nov. 5	..	13.44	.....	.....	...	.....	6.5
	.....S.P.	April 5	..	.....	.....	15.6	...	.....	...
	.....	12	..	.....	.....	18.3	...	.....	...
1317	5 Piscium A	Nov. 4	..	23 1 18.50	+ 3.064	88 39	...	.....	...
	.....	6	..	18.42	.....	.....	...	.....	5.5
1318	8064 B.A.C.	Oct. 18	..	23 1 57.40	+ 3.257	118 52	...	— 19.42	6.5?
	.....	24	..	.....	.....	4.2	...	.....	7.3

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1319*	2 Cassiopeie	Sept. 30 ..		23 3 ...	+ 2.539	31 26 50.9	...	- 19.45	6.5
	.....	Oct. 24 ..		35.49	.....	.....	...	.....	6.0
	.....	Nov. 5 ..		.....	.....	49.7	...	.....	...
1320*	A. Z. cxlii. 160. S.P.	March 29 ..		23 3 40	.....	31 29 28.0	...	- 19.45	8.3
1321	6 Andromedæ	Oct. 25 ..		23 3 48.48	+ 2.771	47 13 ...	...	- 19.46	6.5
	.....	Nov. 14 ..		.....	.....	41.2	...	.....	6.5
1322	60 Pegasi	Oct. 21 ..		23 4 50	.....	63 55 ...	48.4	- 19.48	...
	.....	Nov. 4 ..		.....	.....	46.5	...	.....	...
	.....	6 ..		.....	.....	45.5	...	.....	7.0
1323	8083 B.A.C.	Sept. 24 ..		23 6 ...	+ 2.605	33 37 33.0	...	- 19.51	...
	.....	Nov. 4 ..		22.38	.....	.....	...	.....	5.7
	.....	6 ..		22.18	.....	.....	...	.....	5.7
	..... S.P.	April 1 ..		.....	.....	36.5	...	.....	...
	.....	24 ..		.....	.....	34.0	...	.....	...
1324	ψ ¹ Aquarii.....	Oct. 24 ..		23 8 20.80	+ 3.124	99 52 ...	...	- 19.55	5.7
	.....	28 ..		.....	.....	17.7	...	.....	...
	.....	Nov. 5 ..		20.89	.....	16.4	...	.....	{ 5.0 ...
1325	8107 B.A.C.	Oct. 25 ..		23 10 9.30	+ 2.697	37 33 43.4	...	- 19.58	{ 6.3 ...
	..... S.P.	March 31 ..		.....	.....	44.5	...	.....	...
1326	94 Aquarii (2d)...	Oct. 27 ..		23 11 30	.....	104 14 30.7	...	- 19.61	6.5
	.....	30 ..		.....	.....	32.5	...	.....	6.0
1327	94 Aquarii (1st) ..	Oct. 30 ..		23 11 ...	+ 3.144	104 15 ...	...	.....	8.0
	.....	Nov. 5 ..		32.04	.....	.....	...	.....	8.3
	.....	6 ..		31.93	.....	.....	...	.....	8.3
1328*	8122 B.A.C.	Sept. 30 ..		23 12 ...	+ 2.180	17 5 53.2	...	- 19.63	7.7
	.....	Oct. 18 ..		40.62	.....	.....	...	.....	7.3
	.....	21 ..		.....	.....	51.3	...	.....	7.5
1329	0 Cephei..... S.P.	April 24 ..		23 12 45	.....	22 40 35.1	...	- 19.63	...
1330	8126 B.A.C.	Nov. 6 ..		23 13 0	.....	42 24 25.7	...	- 19.64	...
1331*	7 Pegasi.....	Nov. 14 ..		23 13 30.74	+ 2.958	67 3 ...	...	.....	...

No.	Star.	Date of Obs.	No. of Mires.	Mean R.A. 1856.			Mean N.P.D. 1856.		Preces- sion in N.P.D.	Mag.
				h.	m.	s.	D.	R.		
1332	12 Andromedæ ...	Nov. 5	..	23	14	0	.....	52 36 10.0	... — 19.65	...
1333	8147 B.A.C.	Sept. 30	..	23	15	35.31	+ 2.980	69 57 ...	... — 19.68	6.5
	.....	Oct. 30	..	.....	.....	.....	.....	.....	... ..	7.0
	.....	Nov. 4	..	.....	35.65	.....	.....	.....	... ..	7.0?
	.....	.....	6	..	35.44	.....	.....	.....	... ..	7.0
	.....	.....	14	..	.....	.....	32.3	.....	... ..	7.0
1334	8156 B.A.C.	Oct. 21	..	23	16	43.41	+ 2.917	58 15 ...	... — 19.70	7.5
	.....	Nov. 4	..	.....	.....	.....	20.0	.....	... ..	...
1335	67 Pegasi	Sept. 13	..	23	17	...	+ 2.921	58 24 20.1	... — 19.72	...
	.....	Oct. 24	..	.....	.....	.....	19.1	.....	... ..	6.0
	.....	.....	25	..	48.43	.....	.....	.....	... ..	6.0
	.....	.....	27	..	48.27	.....	.....	.....	... ..	6.0
1336	υ Pegasi	Oct. 28	..	23	18	10	.....	67 23 15.3	... — 19.72	...
1337	.....	Nov. 6	..	23	19	0	.....	4 43 55.9	... — 19.74	9.3
	..... S.P.	April 1	..	.....	.....	.....	60.9	.....	... ..	...
1338	8184 B.A.C.	Sept. 13	..	23	22	5.31	+ 3.092	95 18 59.9	... — 19.78	6.5
	.....	Oct. 21	..	.....	5.63	.....	.....	.....	... ..	7.5
	.....	.....	24	..	5.46	.....	.....	.....	... ..	7.3
	.....	Nov. 5	..	.....	.....	.....	59.1	.....	... ..	...
	.....	.....	14	..	.....	.....	59.8	.....	... ..	7.3
1339	8193 B.A.C.	Sept. 30	5	23	24	5.15	+ 3.090	94 53 ...	... ..	7.0
	.....	Nov. 5	..	.....	5.23	.....	.....	.....	... ..	7.0
1340	.....	Sept. 30	..	23	24	...	+ 0.353	4 22 31.7	... — 19.82	7.5
	.....	Oct. 25	3	.....	10.40	.....	.....	.....	... ..	6.7
	.....	.....	27	3	10.45	.....	.....	.....	... ..	6.5
	.....	.....	30	3	11.56	.....	.....	.....	... ..	6.7
	.....	Nov. 4	3	.....	.....	.....	.....	.....	... ..	7.3
	.....	.....	5	4	10.73	.....	.....	.....	... ..	6.7
	.....	.....	6	3	10.90	.....	.....	.....	... ..	6.5
	.....	.....	14	3	11.34	.....	.....	.....	... ..	6.5
	..... S.P.	March 29	..	.....	.....	.....	30.0	.....	... ..	6.5
	.....	April 12	..	.....	.....	.....	32.5	.....	... ..	7.0

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.		Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h. m. s.	s.		D.	R.		
							° ' "	"	"	
1341	14 Andromedæ ...	Oct. 18 ..		23 24 13.21	+ 2.906		51 33 ...	...	- 19.81	6.0
	.....	25 ..		.....	.....		14.5	...	.....	...
	.....	27 ..		.....	.....		15.3	...	.....	...
	.....	30 ..		.....	.....		15.7	...	.....	...
1342	.....S.P.	March 31 ..		23 25 50	.....		4 47 4.7	...	- 19.83	7.3
1343	4101 Gr.	Sept. 13 ..		23 27 50	.....		3 29 15.8	...	- 19.87*	...
	.....	Nov. 4 ..		.....	.....		16.5	...	.....	...
1344	8221 B.A.C.	Oct. 18 ..		23 30 11.42	+ 3.115		103 51 ...	...	- 19 89	6.0
	.....	24 ..		11.50	.....		.....	...	.....	6.5
	.....	Nov. 5 ..		.....	.....		27.2	...	.....	...
1345	74 Pegasi	Sept. 13 ..		23 30 22.32	+ 3.023		73 58 ...	...	.....	6.7
	.....	Nov. 4 ..		22.44	.....		.....	...	.....	7.3
1346	λ Andromedæ ...	Sept. 30 ..		23 30 31.47	+ 2.897		44 19 ...	...	- 19.89	...
	.....	Oct. 28 ..		31.52	.....		.....	...	.....	4.3 ²
	.....	Nov. 14 ..		31.64	.....		18.6	...	.....	...
1347	ι Piscium	Oct. 24 ..		23 32 ...	+ 3.084*		85 9 ...	15.3	- 19.46*	...
	.....	25 ..		32.68	.....		.....	14.9	.....	...
	.....	27 ..		32.72	.....		.....	...	.....	...
	.....	Nov. 6 ..		.....	.....		.....	14.6	.....	...
	.....	24 ..		32.66	.....		.....	...	.....	...
1348	γ Cephei	Sept. 30 ..		23 33 ...	+ 2.392*		13 10 17.4	...	- 20.07*	...
	.....	Oct. 21 ..		27.93	.....		.....	...	.....	...
	.....	Nov. 6 ..		28.23	.....		.....	...	.....	...
	.....	26 ..		.....	.....		18.2	...	.....	...
	.....S.P.	April 1 ..		.....	.....		.....	14.8	.....	...
1349*	8239 B.A.C.	Oct. 24 ..		23 33 41.83	+ 3.106		102 28 ...	...	- 19.92	6.7
	.....	27 ..		.....	.....		41.5	...	.....	...
	.....	28 ..		.....	.....		44.0	...	.....	...
1350	λ Piscium	Sept. 13 ..		23 34 41.87	+ 3.069		89 0 43.3	...	- 19.93	...
	.....	Nov. 14 ..		42.03	.....		.....	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.	Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
						D.	R.		
				h. m. s.	s.	° ' "	"	"	
1351	ω ² Aquarii.....	Oct. 25 ..		23 35 15.13	+ 3.112	105 20 ...	...	- 19.94	6.0
	.....	Nov. 5 ..		.....	.....	26.5	...	.....	...
	.....	24 ..		15.28	.....	.....	...	.....	...
	.....	27 ..		.....	.....	28.7	...	.....	...
1352	78 Pegasi.....	Oct. 24 ..		23 36 45.34	+ 2.998	61 26 ...	...	- 19.95	5.5
	.....	28 ..		45.18	.....	.....	...	.....	6.0?
	.....	Nov. 14 ..		.....	.....	8.7	...	.....	...
	.....	19 ..		.....	.....	8.7	...	.....	...
1353	20 Piscium <i>n</i>	Sept. 13 ..		23 40 32.37	+ 3.079	93 33 41.1	...	- 19.98	...
	.....	Oct. 25 ..		32.36	.....	.....	...	.....	6.0
	.....	Nov. 5 ..		.....	.....	42.2	...	.....	...
1354	8289 B.A.C.	Oct. 24 ..		23 43 11.67	+ 2.952	39 10 ...	...	- 20.00	6.7
	.....	27 ..		.....	.....	39.6	...	.....	...
	.....	28 ..		.....	.....	40.7	...	.....	6.7
	.....	Nov. 4 ..		11.64	.....	.....	...	.....	...
	.....	5 ..		11.75	.....	.....	...	.....	6.7
1355	8298 B.A.C.	Oct. 18 5		23 45 6.02	+ 2.701	13 11 ...	...	- 20.01	7.3
	.....	Nov. 6 ..		.....	.....	.....	54.9	.....	7.0
	.....	14 5		5.93	.....	54.3	...	.....	7.0
	.....	26 ..		.....	.....	52.9	...	.....	...
	.....	27 ..		.....	.....	52.9	...	.....	7.3
1356	8314 B.A.C.	Oct. 30 ..		23 47 50	.....	16 23 26.9	...	- 20.03	...
	..... S.P. May	5 ..		.....	.....	26.0	...	.....	...
1357*	8321 B.A.C.	Oct. 24 5		23 49 47.25	+ 2.627	7 36 ...	...	- 20.04	7.0
	.....	Nov. 5 ..		.....	.....	39.3	...	.....	7.5
	.....	24 5		47.05	.....	.....	...	.....	6.5
	.....	27 ..		.....	.....	37.5	...	.....	7.3
	.....	29 ..		.....	.....	37.3	...	.....	7.0
1358	1 Ceti.....	Oct. 25 ..		23 50 56.63	+ 3.088	106 38 ...	...	- 20.04	7.0
	.....	Nov. 26 ..		56.72	.....	56.6	...	.....	...

No.	Star.	Date of Obs.	No. of Wires.	Mean R.A. 1856.			Precession in R.A.	Mean N.P.D. 1856.		Precession in N.P.D.	Mag.
				h.	m.	s.		D.	R.		
1359	R Cassiopeiæ.....	Oct. 18	..	23	51	6.39	+ 3.009	39 24 ...	...	- 20.04	6.7
	.....	21	..			6.48	.....	47.3	...	.....	6.7
	.....	24	..			.....	.....	46.1	...	.....	7.3
	.....	27	..			.....	.....	47.0	...	.....	7.5
	.....	Nov. 19	..			6.70	.....	48.0	...	.....	6.0
											6.5?
1360	27 Piscium	Oct. 27	..	23	51	18.24	+ 3.076	94 21 ...	...	.....	5.5
1361	ω Piscium	Oct. 28	..	23	51	55.08	+ 3.066	83 56 ...	...	- 20.04	...
	.....	Nov. 14	..			.....	.....	4.1	...	.....	...
1362	8333 B.A.C.	Nov. 14	..	23	52	17.44	+ 3.077	96 42 ...	...	.....	6.7
1363	8338 B.A.C.	Nov. 6	..	23	53	24.73	+ 3.001	28 37 ...	...	.....	7.0
1364	85 Pegasi	Oct. 24	..	23	54	39.44	+ 3.056	63 41 ...	...	.....	6.3
	.....	Nov. 5	..			39.52	.....	.....	...	.....	6.0
1365	.....	Nov. 29	..	23	55	20	.....	3 46 9.5	...	- 20.05	7.7
	.....S.P.	April 15	..			.....	.....	8.5	...	.....	7.5
1366	33 Piscium	Oct. 28	..	23	58	0	.....	96 30 46.8	...	- 20.06	...
	.....	Nov. 6	..			.....	.....	47.6	...	.....	...
	.....	27	..			.....	.....	47.0	...	.....	...
1367	8374 B.A.C.	Oct. 18	..	23	59	8.83	+ 3.069	61 46 ...	...	- 20.06	6.5
	.....	24	..			8.93	.....	.....	...	.....	6.3
	.....	Nov. 14	..			.....	.....	21.9	...	.....	...
	.....	19	..			.....	.....	22.4	...	.....	...
	.....	26	..			.....	.....	22.4	...	.....	...
	.....	29	..			8.85	.....	.....	...	.....	6.5
1368	.....	Oct. 27	..	23	59	40	.....	4 0 50.0	...	- 20.06	9.0
	.....	Nov. 5	..			.....	.....	50.9	...	.....	9.0

OBSERVED RIGHT ASCENSIONS AND NORTH POLAR DISTANCES OF THE MOON'S CENTRE, COMPARED WITH THE NAUTICAL ALMANAC.

Date.	Observed Limb.	Geocentric R.A. of the Moon's Centre	Seconds by N.A.	Diff. N.A.—Obs.	Geocentric N.P.D. of the Moon's Centre	Seconds by N.A.	Diff. N.A.—Obs.	Observed Limb.
1856.		h. m. s.	s.	s.	° ' "	"	"	
Jan. 18	1	5 16 41.89	42.22	+ 0.33	.....	.....	.....	...
19	...	.....	.....	.....	62 5 5.2	5.0	— 0.2	N
Feb. 14	1	4 58 37.93	38.64	+ 0.71	63 23 34.5	28.7	— 5.8	S
15	...	.....	.....	.....	62 0 54.7	51.0	— 3.7	N
16	1	6 56 58.56	58.86	+ 0.30	62 14 8.0	9.7	+ 1.7	N
March 14	...	.....	.....	.....	61 48 58.3	63.7	+ 5.4	N
April 16	1	11 24 57.01	57.37	+ 0.36	82 53 0.3	10.6	+ 10.3	N
19	1 & 2	13 35 13.09	13.01	— 0.08	100 3 39.6	44.9	+ 5.3	N
May 19	1 & 2	15 44 50.43	50.50	+ 0.07	112 53 25.6	33.5	+ 7.9	N
20	2	16 41 5.37	5.50	+ 0.13	.....	.....	.....	...
June 16	1	16 18 19.06	19.63	+ 0.57	115 0 51.9	53.4	+ 1.5	S
17	1	17 17 38.17	38.32	+ 0.15	117 24 46.8	51.5	+ 4.7	N
July 14	1	16 50 50.71	51.09	+ 0.38	116 38 19.4	27.6	+ 8.2	N
15	1	17 52 20.80	21.33	+ 0.53	118 7 17.7	18.4	+ 0.7	S
16	1	18 56 25.56	26.74	+ 1.18	117 49 28.0	29.5	+ 1.5	S
17	1 & 2	20 0 42.29	43.23	+ 0.94	115 38 3.5	3.7	+ 0.2	S
Aug. 11	1	17 23 18.83	19.25	+ 0.42	117 48 43.4	49.3	+ 5.9	N
13	1	19 29 54.17	55.04	+ 0.87	.....	.....	.....	...
14	1	20 33 31.80	33.02	+ 1.22	113 47 59.9	57.8	— 2.1	S
15	1 & 2	21 34 52.21	53.46	+ 1.25	108 55 20.6	17.2	— 3.4	S
Sept. 10	1	20 2 15.62	16.31	+ 0.69	115 43 32.6	31.2	— 1.4	S
13	1	23 0 44.99	45.87	+ 0.88	99 24 61.8	57.1	— 4.7	S
Nov. 6	1	22 7 6.02	6.51	+ 0.49	105 40 57.4	53.3	— 4.1	S
8	...	.....	.....	.....	92 19 21.3	17.0	— 4.3	S
10	1	1 44 28.00	28.01	+ 0.01	77 53 2.2	0.5	— 1.7	S

A PROVISIONAL CATALOGUE

OF

1481 STARS

DEDUCED FROM THE OBSERVATIONS

MADE AT THE

RADCLIFFE OBSERVATORY,

OXFORD,

DURING THE YEARS 1854, 55, 56,

REDUCED TO 1860.0.



INTRODUCTION.

THE following Catalogue is not to be regarded as a completed work. In its present form it professes only to be a summary of the results of the observations made here since the beginning of 1854, with a view to the construction of a Catalogue, comprehending all objects in the heavens, beyond the Solar system, which are, or are supposed to be, affected by some physical peculiarity, or to which other circumstances lend more than ordinary importance.

Accordingly, in its ultimate form the Catalogue will contain,

1. Stars above the 3d magnitude.
2. Stars situated within 6° of the North Pole, which can be conveniently observed with Telescopes of 4-inch aperture.
3. Stars which are, or are supposed to be, Variable, or which present unusual appearances of colour.
4. Stars which are, or are supposed to be, affected by Proper Motion, exceeding $0''.1$ of the great Circle.
5. Double Stars known to be affected by Orbital Motion.
6. Stars of whatever magnitude, contained in the Standard Catalogue of the Nautical Almanac, as well as those whose places are used for comparison with the Moon.

The following pages represent this work in its state of progress at the end of 1856; and in using it as an authority, the Reader will bear in mind, that although in every stage of observation and reduction the utmost care has been taken to ensure accuracy, it is not pretended that we have been uniformly successful. But, annexed to the Catalogue, will be found a list of all those Stars whose places, according to our determination, present the greatest differences from the places given in the Catalogue of the British Association. This list will contain, probably, most of the positions about which any question will arise, and the accompanying notes will show the degree of reliance to which, in its present form, the Catalogue is entitled.

It is unnecessary here to enter into any account of the Instruments, or of the manner of reducing the observations, inasmuch as these particulars are to be found in the Introduction to the original observations. It only remains for me, therefore, to say a few words explanatory of the form of the Catalogue.

We are compelled by want of space to dispense with the column of ordinal numbers. But the number corresponding to the *first* and *last* Star on each page is given at the left, or right, upper angle of the page; and as the Stars are arranged in groups of five, there will be little difficulty in referring any object to its number.

The names of the Stars have been taken for the most part from the British Association Catalogue, and in default of a proper name, objects have been designated by their numbers in that Catalogue. There are, however, many close Circumpolar stars which are not to be found there; or, if they are, which it has been our custom to designate by Groombridge's numbers;—these numbers have been retained. Other Circumpolar stars of this class have been distinguished by Mr. Carrington's numbers. In the notation of Variables, we have followed Argelander's plan of adopting the capital form of one of the posterior letters of the alphabet, commencing at R. In the application of this rule, as far as we ourselves are concerned, the notation is in order of *time of discovery*. With regard to other authorities, their own notation has been followed. A * appended to the Star's name, in this column, indicates a moon-culminating Star without any physical peculiarity.

The magnitudes assigned to the Stars have been taken in the following order.

1. Our own estimates.
2. Argelander's.
3. Jacob's.
4. Those of the British Association.
5. Struve's (for double Stars).

The next column contains the number of estimates on which our own magnitudes depend. It is our practice to estimate on those occasions only when there is no obvious obstruction to a correct determination. Sometimes, however, it occurs that the Observer is not quite satisfied on this point, and, when in doubt, he assigns to the estimate a weight of $\frac{1}{2}$. This explains the cause of the frequent occurrence of .5 in this column. The omission of figures in this column will show when the magnitude is derived from foreign sources.

The Equinox on which our Right Ascensions depend is that of the

Catalogue of the Nautical Almanac of 1840: our primary places having been taken from it. On comparing the Right Ascensions of 62 Stars between 50° and 120° N.P.D. in that Catalogue, with those in the Catalogue of the Nautical Almanac for 1860, and in our own, I find

$$\begin{aligned} \text{Naut. Alm. 1840} - \text{Naut. Alm. 1860} &= + 0.039 \overset{\text{s.}}{\pm} .005 \\ \text{Radc. Observatory} - \text{Naut. Alm. 1840} &= + 0.043 \overset{\text{s.}}{\pm} .007 \end{aligned}$$

Therefore

$$\text{Radc. Observatory} - \text{Naut. Alm. 1860} = + 0.082 \overset{\text{s.}}{\pm} \overset{\text{s.}}{0.008}$$

This quantity, I conclude, will represent the difference between our Equinox and that adopted at Greenwich.

The Precessions both in R.A. and N.P.D. are calculated from Professor Peter's formulæ.

The adopted Proper Motions of stars, which occur in the Greenwich Catalogues, are those given by Mr. Main in his paper in the *Royal Astronomical Society's Memoirs*, Vol. XIX. p. 121. Those of other stars are taken from the British Association Catalogue.

The Latitude adopted in the determinations of N.P.D. is, $51^{\circ} 45' 35'' 2$.

The Refractions were computed by the Astronomer Royal's arrangement of Bessel's tables; and the values thus found were multiplied by 0.9967 to reduce the Constant adopted in the *Tabulæ Regiomontanæ* to that of the *Fundamenta Astronomiæ*. (Radc. Obs. Vol. XV. p. xxvi.)

The observed places have been corrected for the changes of Zero point in different positions of the Telescope.

Appended to the Catalogue is a list of stars, which differ more than $0^{\circ}.5$ in R.A. and $4''$ in N.P.D. from those in the British Association Catalogue; and in the notes which follow I have endeavoured, in most cases, to trace the causes of these differences, by comparing the places given by different Observers reduced to the epoch 1860. It will be perceived that in many cases these comparisons have formed the basis of a fresh deduction of P.M. by the method of least squares, the only safe method of conducting the inquiry, as, I think, a glance at our own and similar investigations will show. I believe there is no exaggeration in saying, that at least two thirds of the larger errors of the B.A.C. arise from the adoption of P.M. founded on the comparison of only *two* determinations.

On first entering upon this enquiry, my intention was not so much to investigate the amount of P.M. as to assure myself of the probable accuracy of the places in this Catalogue. Accordingly, in several cases, especially at the commencement of the Catalogue, when our differences from Taylor, who is the chief authority of the B.A.C. fell within the limits

mentioned above, the investigation was not carried farther, inasmuch as there was reason to infer that the error was on the side of the B.A.C.

It is hardly necessary to say, that this is to be regarded merely as a preliminary enquiry, which will probably undergo many modifications when our places for 1860 are definitively settled.

I am indebted to Mr. Pogson for the Table of Variations and Epochs of the Variable Stars which appear in the Catalogue. This Table has been very carefully compiled from Mr. Pogson's own observations, and from the publications of other Observers.

ERRATA.

<i>Page</i>	<i>No.</i>	<i>Star.</i>	<i>Column</i>			
1*	19	10 Ceti.....	Mean R.A.	for	36°.61	read 26°.61
15*	489	2371 B.A.C. ...	.....		41°.10	40°.1'
22*	731	89 Leonis	Estimates of } Magnitude }		3	5

CATALOGUE OF STARS OBSERVED IN 1854—56,

REDUCED TO 1860.0,

CORRECTED FOR THE ERRORS OF ADOPTED ZERO POINT.

Nos. 1—30.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	
			h. m. s.		s.	s.		° ' "		"	"		
α Andromedæ	2.0	...	0 1 9.45	4	+	3.076	+ .009	55.5	61 40 55.9	2	- 20.05	+ 0.15	56.4
6 B.A.C.	6.5	2	0 1 41.02	2	+	3.123	+ .057	56.8	11 4 ...	..	- 20.05	+ 0.08	...
β Cassiopeiæ.	2.3	...	0 1 43.42	1	+	3.088	+ .063	54.8	31 37 ...	..	- 20.05	+ 0.19	...
87 Pegasi.....	6.3	2	0 1 49.42	2	+	3.075	+ .012	56.8	72 34 ...	..	- 20.05	- 0.02	...
10 B.A.C.	6.0	...	0 2 12.84	1	+	3.064	+ .013	56.9	118 46 0.8	1	- 20.05	- 0.10	56.9
6 Ceti.....	5.9	4	0 4 8.29	3	+	3.064	- .004	56.8	106 14 13.9	3	- 20.05	+ 0.22	54.8
γ Pegasi.....	2.7	...	0 6 1.84	5	+	3.080	.000	56.5	75 35 39.1	5	- 20.05	+ 0.02	56.4
13 Carrington	8.2	5	0 6 10.21	6	+	3.582	...	54.9	4 3 11.9	1	- 20.05	...	56.9
15 Carrington	8.5	7	0 6 52.87	6	+	3.631	...	55.3	4 6 23.4	2	- 20.05	...	56.6
46 B.A.C.	6.0	3	0 9 27.43	3	+	3.171	+ .019	56.2	29 14 41.9	1	- 20.04	+ 0.01	56.9
47 B.A.C.	7.5	2.5	0 9 29.09	1	+	3.073	- .011	55.7	88 55 42.9	2	- 20.04	+ 0.08	54.9
38 Piscium (1)	8.5	1	0 10 11.66	1	+	3.081	+ .005	56.8	81 54 21.4	1	- 20.04	- 0.11	55.9
38 Piscium (2)	7.5	1	0 10 11.91	1	+	3.081	+ .005	56.8	81 54 ...	..	- 20.04	- 0.11	...
39 Piscium....	7.7	1	0 10 34.33	1	+	3.089	+ .021	56.9	74 26 47.4	1	- 20.03	0.00	56.9
23 Carrington	8.3	1	0 11 34.89	1	+	5.966	...	55.9	1 20 ...	..	- 20.03	...	...
42 Piscium ...	6.6	4	0 15 11.15	3	+	3.092	+ .010	56.9	77 17 42.3	5	- 20.01	- 0.04	56.5
9 Ceti	6.8	4	0 15 41.44	3	+	3.049	+ .028	56.9	102 59 20.6	3	- 20.01	- 0.10	54.8
81 B.A.C.	7.0	5	0 17 20.39	2	+	3.066	- .013	56.8	92 59 37.3	4	- 20.00	+ 0.10	55.4
10 Ceti.....*	6.5	1	0 19 36.61	1	+	3.071	+ .005	56.9	90 49 33.7	2	- 19.98	+ 0.03	56.9
96 B.A.C.	7.2	3	0 19 57.09	2	+	3.060	+ .007	56.8	95 46 45.3	3	- 19.98	+ 0.13	54.9
97 B.A.C.	7.7	1	0 20 9.27	1	+	3.076	- .011	56.8	87 57 41.0	1	- 19.98	+ 0.06	55.9
98 B.A.C.	7.0	2	0 20 14.57	1	+	3.104	+ .010	56.8	74 45 1.5	1	- 19.98	- 0.09	56.9
47 Piscium....	5.7	...	0 20 45	..	+	3.109	+ .011	...	72 52 57.0	3	- 19.97	- 0.11	56.8
11 Ceti.....	7.5	...	0 22 44.31	1	+	3.067	+ .016	56.9	91 53 21.9	2	- 19.96	+ 0.02	55.9
111 B.A.C.	7.3	0.5	0 22 46.36	1	+	3.034	+ .018	56.8	105 38 ...	..	- 19.96	+ 0.01	...
67 Gr.	8.2	4	0 22 52.12	4	+	4.782	...	56.7	4 27 19.7	1	- 19.96	...	55.8
12 Ceti	6.2	2	0 22 53.70	1	+	3.061	- .002	56.9	94 43 53.2	1	- 19.96	+ 0.01	56.9
56 Carrington	8.6	8	0 23 11.59	8	+	4.974	...	54.9	4 3 55.3	1	- 19.95	...	54.8
13 Cassiopeiæ	6.5	1	0 23 24.30	1	+	3.374	+ .037	54.9	24 15 ...	..	- 19.95	+ 0.01	...
57 Carrington	9.0	5	0 23 38.39	4	+	4.431	...	55.5	5 47 6.0	1	- 19.95	...	54.9

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
52 Piscium ...	6.0	1	0 25 15.64	2	+ 3.124	+ .012	55.7	70 28 36.4	3	- 19.93	+ 0.03	55.5
62 Carrington	7.9	6	0 25 40.84	6	+ 4.575	...	55.6	5 40 48.4	2	- 19.93	...	56.9
132 B.A.C.	7.9	2	0 26 19.45	1	+ 3.068	- .008	56.9	91 22 52.8	1	- 19.92	+ 0.12	56.9
65 Carrington	7.1	3	0 26 42.10	3	+ 4.527	..	56.9	6 7 ...	..	- 19.92	...	...
137 B.A.C.	7.3	1	0 26 55.54	2	+ 3.098	+ .009	56.9	80 28 1.8	2	- 19.92	+ 0.21	55.4
138 B.A.C.	7.0	1	0 27 20.99	1	+ 3.057	+ .004	56.8	95 19 ...	..	- 19.91	+ 0.11	...
67 Carrington	8.3	2	0 27 43.11	2	+ 4.601	...	56.9	6 2 ...	..	- 19.91	...	...
13 Ceti	6.0	1	0 28 2.51	3	+ 3.059	+ .017	54.9	94 21 50.2	1	- 19.91	+ 0.04	56.9
69 Carrington	8.7	2	0 28 4.46	2	+ 4.621	...	56.9	6 1 ...	..	- 19.91	...	...
147 B.A.C.	6.7	1	0 28 21.53	2	+ 3.068	+ .009	55.8	91 17 ...	..	- 19.90	+ 0.14	...
154 B.A.C.	6.4	2	0 29 21.79	2	+ 4.246	- .049	56.9	8 16 49.2	2	- 19.89	- 0.08	56.9
160 B.A.C.	5.7	0.5	0 30 9.22	1	+ 2.988	+ .103	55.7	115 32 17.5	3	- 19.88	+ 0.10	54.8
161 B.A.C.	6.5	2.5	0 30 18.18	3	+ 3.079	+ .015	56.9	87 38 0.3	1	- 19.88	+ 0.11	56.9
ε Andromedæ	4.0	...	0 31 9.89	1	+ 3.170	- .018	55.7	61 26 55.0	1	- 19.87	+ 0.24	55.8
δ Andromedæ	3.3	...	0 31 50.93	1	+ 3.179	+ .011	55.9	59 54 21.1	1	- 19.86	+ 0.11	54.8
167 B.A.C.	7.9	2	0 31 54.40	2	+ 3.080	+ .059	56.9	87 38 54.2	1	- 19.86	- 0.22	55.9
54 Piscium ...	6.6	3	0 32 5.16	2	+ 3.142	- .032	56.8	69 30 19.4	2	- 19.86	+ 0.36	55.9
α Cassiopeie . Var.	...	...	0 32 34.91	1	+ 3.351	+ .006	55.9	34 13 52.0	4	- 19.85	+ 0.04	55.6
32 Andromedæ	6.0	2	0 33 32.28	1	+ 3.228	+ .012	55.8	51 18 36.8	2	- 19.84	- 0.02	54.9
174 B.A.C.	6.8	2	0 33 34.84	2	+ 3.054	- .013	54.9	95 7 14.5	1	- 19.84	- 0.13	56.9
178 B.A.C.	6.1	3	0 34 10.96	3	+ 3.160	+ .033	56.8	66 8 20.2	2	- 19.83	- 0.02	56.9
191 B.A.C.	7.6	1.5	0 35 53.41	1	+ 3.055	- .003	55.7	94 37 30.1	3	- 19.81	+ 0.15	54.8
β Ceti	2.0	...	0 36 33.70	5	+ 3.000	+ .013	56.4	108 45 21.3	2	- 19.80	- 0.02	54.9
φ ¹ Ceti	5.5	1	0 37 7.77	3	+ 3.029	+ .003	56.8	101 22 22.0	1	- 19.79	+ 0.10	56.9
201 B.A.C.	5.9	5	0 37 19.74	4	+ 3.375	+ .018	56.9	35 32 45.0	3	- 19.79	+ 0.08	56.8
204 B.A.C.	7.5	2.5	0 37 58.35	3	+ 3.069	+ .011	56.9	90 31 ...	..	- 19.78	+ 0.16	...
18 Ceti	6.8	3.5	0 38 26.84	2	+ 3.018	- .003	55.7	103 38 22.3	3	- 19.77	+ 0.19	55.6
61 Piscium	6.5	...	0 40 29.69	1	+ 3.159	+ .013	55.7	69 50 24.1	2	- 19.74	+ 0.06	55.9
η Cassiop. (1st)	3.7	...	0 40 39.26	2	+ 3.436	+ .132	56.8	32 55 41.3	2	- 19.74	+ 0.49	56.6
η Cassiop. (2d)	9.0	1	0 40 40.13	1	+ 3.436	+ .132	54.8	32 56 ...	..	- 19.74	+ 0.49	...
221 B.A.C.	6.0	2	0 41 2.41	2	+ 3.091	+ .039	56.9	85 26 23.0	1	- 19.74	+ 1.18	56.9
δ Piscium	4.3	...	0 41 25.32	3	+ 3.101	+ .003	54.9	83 10 40.0	2	- 19.73	+ 0.05	54.9
64 Piscium ...	6.0	1	0 41 37.60	1	+ 3.142	+ .001	56.8	73 48 58.7	1	- 19.73	+ 0.16	56.8
225 B.A.C.	6.0	2	0 42 2.37	1	+ 5.043	+ .037	56.9	7 3 15.6	1	- 19.72	+ 0.03	56.9
230 B.A.C.	6.0	...	0 42 23.77	2	+ 3.009	+ .017	55.8	104 19 19.3	3	- 19.71	+ 0.10	54.8

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		" ' "		"	"	
232 B.A.C.	6.4	...	0 42 57.95	1	+ 3.377	+ .018	55.9	39 15 18.6	1	- 19.70	+ 0.08	56.8
ϕ^2 Ceti	5.9	2	0 43 7.04	3	+ 3.022	- .013	56.9	101 24 ...	..	- 19.70	+ 0.22	...
20 Ceti	5.3	0.5	0 45 51.20	3	+ 3.063	- .004	55.7	91 54 17.7	3	- 19.66	+ 0.01	56.9
144 Gr.	6.4	...	0 46 30	..	+ 11.992	+ .116	...	1 43 46.8	1	- 19.64	+ 0.02	56.9
21 Ceti	6.7	1	0 47 13.81	1	+ 3.026	+ .005	54.8	99 29 57.9	2	- 19.63	+ 0.12	54.9
36 Andromedæ	5.8	3	0 47 28.75	2	+ 3.188	+ .011	56.9	67 7 50.4	1	- 19.63	+ 0.02	56.9
γ Cassiopeiæ..	2.0	...	0 48 17.21	2	+ 3.555	- .008	55.4	30 2 33.2	2	- 19.61	- 0.02	56.7
μ Andromedæ	4.0	...	0 48 59.63	1	+ 3.291	+ .005	55.8	52 15 39.1	2	- 19.60	- 0.05	55.9
127 Carrington	9.2	4	0 50 5.64	3	+ 12.519	...	55.5	1 46 ...	..	- 19.58	...	...
2 Urs. Min. ...	4.3	...	0 50 17.22	7	+ 6.771	+ .065	55.4	4 29 48.0	3	- 19.58	+ 0.01	56.7
270 B.A.C.	7.2	3	0 51 3.99	5	+ 3.104	- .003	56.3	83 54 47.5	1	- 19.56	+ 0.12	54.8
175 Gr.	9.2	3	0 52 21.81	3	+ 10.051	...	55.9	2 29 ...	..	- 19.53	...	...
195 Gr.	7.0	1	0 53 25	..	+ 7.979	- .171	...	3 36 11.2	3	- 19.51	- 0.02	56.6
70 Piscium ...	8.0	1	0 54 50.07	1	+ 3.112	+ .002	55.7	82 48 53.4	1	- 19.48	- 0.17	57.0
ϵ Piscium	4.0	...	0 55 40.81	4	+ 3.112	- .002	56.4	82 51 51.8	4	- 19.47	0.00	56.6
25 Ceti	6.0	1	0 55 57.72	1	+ 3.040	- .007	54.8	95 35 ...	..	- 19.46	+ 0.10	...
290 B.A.C.	7.2	4	0 56 2.02	3	+ 3.500	- .012	56.9	36 32 45.8	1	- 19.46	...	56.8
296 B.A.C.	6.5	...	0 56 36.45	1	+ 2.883	- .045	56.9	120 16 41.8	1	- 19.45	- 0.53	56.8
ψ^1 Pisc. (1st).	5.5	...	0 58 11.07	1	+ 3.199	+ .010	55.7	69 16 38.4	3	- 19.41	+ 0.02	54.9
ψ^1 Pisc. (2d).	6.0	...	0 58 11.88	1	+ 3.199	+ .007	55.7	69 17 2.8	2	- 19.41	+ 0.03	55.9
77 Pisc. (1st)	7.0	...	0 58 35	..	+ 3.097	+ .004	...	85 50 15.2	1	- 19.40	+ 0.11	55.9
μ Cassiopeiæ.	5.3	...	0 58 58.98	2	+ 3.544	+ .386	54.8	35 46 5.6	4	- 19.40	+ 1.56	55.5
41 Andromedæ	5.0	...	0 59 59.44	2	+ 3.397	+ .018	55.4	46 48 16.8	1	- 19.37	+ 0.04	56.4
78 Piscium ...	6.3	1	1 0 17.04	1	+ 3.283	+ .019	56.9	58 44 ...	..	- 19.37	+ 0.01	...
320 B.A.C.	6.3	1	1 0 20	.	+ 4.849	+ .034	...	11 4 24.0	2	- 19.37	+ 0.03	57.0
ψ^2 Piscium ...	6.0	1	1 0 26.87	1	+ 3.199	+ .008	56.9	70 0 ...	..	- 19.36	+ 0.10	...
30 Ceti	6.5	1	1 0 43.95	1	+ 3.007	+ .011	55.8	100 32 ...	..	- 19.36	- 0.02	...
29 Ceti	7.1	2	1 0 46.59	1	+ 3.080	+ .010	56.9	88 44 23.5	1	- 19.35	+ 0.46	56.9
80 Piscium e .	5.0	...	1 1 9.71	3	+ 3.102	- .021	55.8	85 5 30.2	3	- 19.35	+ 0.19	55.6
η Ceti	3.0	...	1 1 32.87	1	+ 3.003	+ .017	55.7	100 55 33.6	1	- 19.34	+ 0.12	56.9
β Andromedæ	2.3	...	1 1 54.23	1	+ 3.321	+ .015	56.9	55 7 21.7	6	- 19.33	+ 0.09	54.9
θ Cassiopeiæ..	4.5	...	1 2 35	..	+ 3.576	+ .023	...	35 35 46.2	1	- 19.31	+ 0.02	56.9
32 Cassiopeiæ	5.7	1	1 2 36.55	1	+ 3.819	- .050	56.9	25 43 36.1	1	- 19.31	+ 0.01	56.0
341 B.A.C.	6.3	1	1 2 46.28	1	+ 3.168	+ .018	56.9	75 4 21.2	1	- 19.31	+ 0.17	56.9
351 B.A.C.	7.0	...	1 4 9.15	1	+ 3.134	- .009	55.7	80 27 13.5	1	- 19.28	- 0.11	54.9

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
352 B.A.C.....	6.3	1	1 4 28.49	2	+ 3.438	+ .020	55.9	45 24 30.4	2	- 19.27	+ 0.05	56.9
173 Carrington	8.5	6	1 4 46.57	6	+ 8.681	...	55.6	3 48 14.0	1	- 19.26	...	55.9
358 B.A.C.....	6.5	0.5	1 5 17.37	1	+ 3.283	+ .007	56.9	60 40 45.7	1	- 19.25	+ 0.12	57.0
35 Ceti.....	7.0	1	1 5 20.09	2	+ 3.084	- .010	55.9	88 16 9.0	1	- 19.25	+ 0.14	54.9
37 Ceti.....	5.6	3	1 7 20.91	4	+ 3.013	+ .004	56.7	98 40 36.0	2	- 19.20	- 0.27	56.3
Polaris (1st) ..	8.9	...	1 7 35.39	1	+ 18.519	...	56.3	1 26 ...	..	- 19.19	...	...
38 Ceti.....	6.0	1	1 7 40.55	1	+ 3.061	- .003	55.7	91 43 27.2	3	- 19.19	- 0.21	54.9
Polaris	2.0	...	1 8 2.64	5	+ 18.663	+ .065	56.4	1 26 12.7	3	- 19.18	0.00	56.0
183 Carrington	8.0	2	1 8 11.06	3	+ 13.422	...	55.3	2 10 ...	..	- 19.17	...	...
378 B.A.C.....	6.5	1	1 8 46.88	1	+ 4.761	...	56.9	13 10 18.4	2	- 19.16	- 0.11	56.0
40 Ceti.....	6.0	...	1 9 48.99	2	+ 3.051	+ .014	55.8	93 0 47.9	1	- 19.13	+ 0.14	56.8
35 Cassiopeiae	6.5	...	1 11 46.60	1	+ 3.914	+ .038	56.9	26 4 38.8	4	- 19.08	+ 0.02	56.7
397 B.A.C.....	7.6	6	1 12 9.65	5	+ 3.091	.000	55.7	87 26 51.5	4	- 19.07	+ 0.13	55.4
405 B.A.C.....	6.9	2	1 15 24.64	3	+ 3.080	- .009	54.8	89 0 21.1	3	- 18.98	+ 0.11	54.8
410 B.A.C.....	7.7	1	1 15 37.75	1	+ 3.123	+ .001	56.9	83 19 25.0	2	- 18.97	- 0.17	56.9
47 Andromedæ	6.0	1	1 15 40.80	2	+ 3.398	+ .010	54.9	53 1 1.0	2	- 18.97	- 0.02	55.8
δ Cassiopeiae .	3.0	...	1 16 41.18	2	+ 3.818	+ .042	55.8	30 29 39.3	2	- 18.94	+ 0.05	56.4
418 B.A.C.....	7.5	0.5	1 16 54.56	1	+ 2.865	- .003	56.9	115 5 ...	..	- 18.94	+ 0.10	...
θ ¹ Ceti.....	3.0	...	1 17 1.60	5	+ 3.003	- .007	56.4	98 54 28.7	1	- 18.93	+ 0.22	55.9
ω Andromedæ	5.0	...	1 19 17.76	5	+ 3.520	+ .031	55.7	45 19 5.1	3	- 18.87	+ 0.11	56.6
95 Piscium....	7.0	3	1 20 23.88	2	+ 3.109	- .001	54.8	85 22 11.1	2	- 18.83	+ 0.17	56.0
38 Cassiop. A	5.5	1	1 20 52.38	2	+ 4.310	+ .029	56.9	20 27 28.1	2	- 18.82	+ 0.08	54.6
443 B.A.C.....	7.0	...	1 22 14.81	1	+ 4.314	+ .025	55.7	20 42 ...	..	- 18.78	+ 0.02	...
444 B.A.C.....	6.3	...	1 22 18.84	1	+ 4.217	+ .032	56.9	22 18 45.3	1	- 18.78	+ 0.08	56.9
μ Piscium.....	5.0	...	1 22 51.30	3	+ 3.117	+ .019	55.6	84 34 45.3	8	- 18.76	+ 0.18	55.4
452 B.A.C.....	6.5	1	1 23 47.10	1	+ 2.829	+ .018	56.9	116 55 55.7	2	- 18.73	- 0.01	54.9
η Piscium	3.7	...	1 23 59.69	3	+ 3.197	.000	55.9	75 22 36.5	6	- 18.72	0.00	56.4
454 B.A.C.....	7.0	1	1 24 18.88	1	+ 3.158	- .001	56.8	79 50 2.3	2	- 18.71	+ 0.12	56.9
469 B.A.C.....	6.7	2	1 27 14.96	1	+ 3.231	+ .017	55.7	72 15 21.3	4	- 18.62	+ 0.12	55.4
225 Carrington	7.9	2	1 28 9.77	3	+ 8.289	...	55.9	5 29 30.7	1	- 18.59	...	55.9
477 B.A.C.....	6.3	2	1 28 20.63	3	+ 3.223	+ .011	54.9	73 17 4.6	2	- 18.58	- 0.07	56.9
50 Andromedæ	4.3	...	1 28 35.51	1	+ 3.506	- .016	54.9	49 18 ...	..	- 18.58	+ 0.39	...
51 Andromedæ	3.5	...	1 29 24.96	2	+ 3.635	+ .006	56.9	42 5 ...	..	- 18.55	+ 0.14	...
π Piscium ...*	5.7	1	1 29 40.82	1	+ 3.175	- .007	56.9	78 34 33.0	2	- 18.54	- 0.03	56.4
490 B.A.C.....	6.7	1	1 30 14.08	1	+ 3.175	+ .016	54.9	78 38 13.7	3	- 18.52	0.00	54.9

Nos. 136-170.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
491 B.A.C.....	6.7	0.5	1 30 37.87	1	+ 2.980	+ .026	57.0	100 7 ... ..	..	- 18.51	+ 0.03	...
42 Cassiopeia.	6.0	...	1 32 8.38	1	+ 4.502	+ .022	57.0	20 5 13.6	2	- 18.46	+ 0.02	56.7
504 B.A.C.....	6.0	...	1 32 15.59	1	+ 2.820	+ .017	56.9	115 44 ... ..	..	- 18.46	+ 0.06	...
7 Andromedæ.	5.0	...	1 32 19.76	2	+ 3.510	+ .011	56.3	50 8 1.0	1	- 18.45	+ 0.09	56.9
339 Gr.....	8.3	...	1 32 30	..	+ 11.058	...	...	3 45 43.0	4	- 18.44	...	55.9
509 B.A.C.....	7.0	1	1 33 11.18	1	+ 3.982	+ .028	57.0	30 10 ... ..	..	- 18.42	+ 0.02	...
510 B.A.C.....	5.3	1	1 33 16.64	1	+ 3.547	+ .080	54.8	48 5 ... ..	..	- 18.42	+ 0.06	...
514 B.A.C.....	6.3	1	1 33 45.03	1	+ 3.371	+ .006	56.9	60 39 43.7	1	- 18.40	- 0.14	55.0
44 Cassiopeia.	6.0	...	1 33 53.03	1	+ 3.988	+ .027	54.8	30 9 24.7	1	- 18.40	+ 0.04	57.0
v Piscium.....	4.7	...	1 34 8.79	1	+ 3.117	- .004	54.8	85 13 19.1	5	- 18.38	+ 0.04	55.3
107 Piscium ..	6.0	0.5	1 34 54.09	1	+ 3.264	- .018	57.0	70 24 46.4	2	- 18.36	+ 0.66	56.9
251 Carrington	8.0	1	1 36 57.66	4	+ 17.385	...	55.9	2 12 ... ..	..	- 18.29	...	...
7 Ceti.....	3.3	...	1 37 33.89	5	+ 2.906	- .117	56.5	106 40 32.5	3	- 18.26	- 0.87	55.6
535 B.A.C.....	5.8	3	1 37 39.83	3	+ 4.163	+ .097	56.9	26 50 25.9	3	- 18.26	+ 0.22	56.0
o Piscium.....	4.0	...	1 38 0.34	2	+ 3.154	+ .006	54.9	81 32 53.1	2	- 18.25	- 0.01	54.9
ε Sculptoris...	5.0	...	1 39 5.37	1	+ 2.802	+ .018	57.0	115 45 12.9	2	- 18.21	- 0.01	55.9
540 B.A.C.....	6.3	1	1 39 13.36	2	+ 3.644	+ .012	56.9	44 28 10.7	2	- 18.21	+ 0.12	56.9
544 B.A.C.....	6.0	...	1 40 25	..	+ 3.503	+ .010	...	52 44 46.5	1	- 18.16	- 0.01	56.9
545 B.A.C.....	7.0	...	1 40 55	..	+ 5.643	+ .047	...	12 29 49.0	1	- 18.14	+ 0.01	57.0
555 B.A.C.....	6.4	2	1 42 0.49	3	+ 3.789	+ .010	54.8	38 45 31.9	2	- 18.10	+ 0.07	54.9
ε Cassiopeia ..	3.3	...	1 44 21.65	1	+ 4.225	+ .006	55.9	27 1 18.7	5	- 18.01	+ 0.02	56.2
ζ Ceti.....	3.0	...	1 44 33.11	2	+ 2.957	+ .004	56.9	101 1 41.6	1	- 18.00	+ 0.12	55.9
α Trianguli ...	3.7	...	1 45 6.64	2	+ 3.399	.000	56.9	61 6 14.5	4	- 17.98	+ 0.23	56.7
γ Arietis (N.).	3.7	...	1 45 51.21	1	+ 3.273	+ .009	55.9	71 23 30.4	2	- 17.95	+ 0.11	54.9
γ Arietis (S.).	5.0	1	1 45 51.25	1	+ 3.273	+ .002	56.9	71 23 38.1	2	- 17.95	+ 0.11	55.0
β Arietis	2.7	...	1 46 54.67	4	+ 3.292	+ .002	55.4	69 52 40.5	3	- 17.91	+ 0.11	56.6
56 Andromedæ	6.0	1	1 47 50.90	1	+ 3.521	+ .016	56.8	53 26 11.4	2	- 17.88	- 0.04	56.9
586 B.A.C.....	6.7	2	1 48 39.79	1	+ 3.085	+ .005	55.9	88 50 45.2	1	- 17.84	- 0.12	54.9
409 Gr.....	8.5	1	1 49 18.22	1	+ 5.329	...	56.9	15 13 ... ..	..	- 17.82	...	...
47 Cassiopeia.	5.9	2	1 51 14.09	3	+ 5.691	+ .027	56.9	13 23 41.2	3	- 17.74	+ 0.02	54.7
607 B.A.C.....	6.4	2	1 51 49.96	2	+ 3.305	+ .017	54.9	69 37 21.6	1	- 17.71	+ 0.11	57.0
612 B.A.C.....	7.5	2	1 52 38.63	2	+ 3.131	+ .009	56.9	84 39 ... ..	..	- 17.68	+ 0.10	...
112 Piscium...	6.0	1	1 52 52.37	1	+ 3.099	+ .023	56.9	87 34 28.4	3	- 17.67	+ 0.25	54.9
284 Carrington	8.3	2	1 53 24.61	2	+ 27.502	...	56.5	1 29 21.5	2	- 17.65	...	55.9
α Piscium (1st)	3.8	...	1 54 48.30	1	+ 3.095	+ .009	56.8	87 55 ... ..	..	- 17.59	- 0.01	...

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
α Piscium (2d)	4.0	...	1 54 48.31	1	+ 3.095	+ .009	55.9	87 54 50.1	3	- 17.59	- 0.01	54.6
γ Andro. (1st)	3.0	...	1 55 19.12	2	+ 3.645	+ .001	54.9	48 20 39.3	4	- 17.57	+ 0.06	56.9
γ Andro. (2d)	5.0	...	1 55 20.13	1	+ 3.645	+ .001	57.0	48 21 31.4	...	- 17.57	+ 0.06	56.9
629 B.A.C.	6.9	2	1 55 29.73	2	+ 3.189	+ .006	54.9	79 40 ...	...	- 17.56	+ 0.19	...
10 Arietis	6.0	...	1 55 43.00	1	+ 3.377	+ .013	57.0	64 44 32.0	1	- 17.55	+ 0.03	56.0
637 B.A.C.	7.3	2	1 56 25.74	1	+ 3.378	+ .003	55.9	64 45 15.3	2	- 17.52	+ 0.17	54.9
54 Cassiopeiæ	7.3	1	1 57 7.49	1	+ 4.959	+ .067	54.8	19 6 32.5	3	- 17.49	+ 0.24	56.9
641 B.A.C.	7.0	...	1 57 28.07	1	+ 3.153	+ .010	57.0	82 56 12.4	2	- 17.48	- 0.05	55.9
α Arietis	2.0	...	1 59 17.33	5	+ 3.352	+ .012	56.3	67 12 3.4	3	- 17.40	+ 0.15	56.2
58 Andromedæ	5.7	1	2 0 2.90	1	+ 3.579	+ .016	57.0	52 48 22.3	1	- 17.37	+ 0.03	57.0
305 Carrington	8.6	5	2 0 43.91	6	+ 23.020	...	55.8	1 56 ...	...	- 17.33	...	...
β Trianguli ...	3.0	...	2 1 13.59	1	+ 3.532	+ .013	57.0	55 40 36.1	3	- 17.31	+ 0.05	54.9
669 B.A.C.	7.7	1	2 3 32.20	2	+ 3.331	+ .020	56.9	69 17 ...	...	- 17.21	+ 0.04	...
64 Ceti.	6.0	...	2 3 57.73	1	+ 3.167	- .009	57.0	82 5 ...	...	- 17.19	+ 0.10	...
6 Persei	5.7	1	2 4 18.94	3	+ 3.907	+ .035	54.9	39 35 13.8	1	- 17.18	+ 0.16	57.0
η Arietis	5.9	2	2 4 58.07	2	+ 3.332	+ .009	56.0	69 26 57.2	1	- 17.15	- 0.01	56.9
66 Ceti (1st) ..	8.3	0.5	2 5 37.69	1	+ 3.035	+ .036	57.0	93 3 ...	...	- 17.12	+ 0.04	...
66 Ceti (2d) ..	6.0	1	2 5 38.60	1	+ 3.035	+ .036	56.9	93 3 ...	...	- 17.12	+ 0.04	...
20 Arietis	6.3	3	2 7 45.57	3	+ 3.403	+ .014	56.9	64 52 8.4	3	- 17.02	+ 0.12	56.9
δ Trianguli ...	5.3	2	2 8 31.13	1	+ 3.544	+ .096	56.0	56 25 5.7	4	- 16.98	+ 0.23	55.7
700 B.A.C.	6.0	1	2 9 16.19	2	+ 4.151	+ .014	56.9	33 30 50.9	1	- 16.95	- 0.02	56.9
67 Ceti.	6.0	...	2 10 0.02	1	+ 2.982	+ .007	56.9	97 4 7.6	1	- 16.92	+ 0.12	57.0
θ Arietis*	5.7	...	2 10 20.78	2	+ 3.324	- .002	55.9	70 44 55.5	1	- 16.90	+ 0.01	56.9
708 B.A.C.	6.0	1	2 10 45.19	1	+ 3.086	+ .017	56.9	88 54 22.6	2	- 16.88	- 0.36	55.9
0 Ceti	Var.	...	2 12 16.57	3	+ 3.026	- .003	55.6	93 36 55.7	3	- 16.81	+ 0.23	56.9
723 B.A.C.	6.0	...	2 12 40	...	+ 2.705	- .010	...	116 36 32.9	1	- 16.79	- 0.37	56.9
331 Carrington	9.4	5	2 15 23.36	8	+ 27.108	...	55.6	1 47 ...	...	- 16.65	...	...
κ Formacis	5.3	1	2 16 8.19	2	+ 2.732	+ .025	55.9	114 27 14.1	3	- 16.62	+ 0.08	54.9
742 B.A.C.	6.0	...	2 17 7.76	1	+ 2.628	- .048	56.9	120 30 ...	...	- 16.57	- 0.65	...
743 B.A.C.	6.0	...	2 17 8.58	1	+ 2.678	- .007	56.0	117 37 48.8	1	- 16.57	- 0.56	55.0
66 Andromedæ	6.5	1	2 18 29.37	2	+ 3.973	+ .003	56.9	40 3 32.1	2	- 16.50	+ 0.10	55.9
750 B.A.C.	8.0	1	2 18 40.06	1	+ 3.206	+ .007	57.0	79 59 9.5	1	- 16.50	+ 0.35	57.0
347 Carrington	8.9	2	2 19 34.85	5	+ 30.344	...	55.6	1 36 ...	...	- 16.45	...	...
ξ^2 Ceti.	4.0	...	2 20 43.08	4	+ 3.178	+ .001	55.5	82 10 9.5	5	- 16.39	+ 0.02	56.0
352 Carrington	7.9	7	2 21 26.14	10	+ 15.486	...	55.7	3 34 ...	...	- 16.36	...	...

Nos. 206—240.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
27 Arietis....*	6.2	3	2 23 8.77	2	+ 3.312	.000	55.9	72 55 2.7	6	- 16.27	+ 0.09	56.9
785 B.A.C.....	7.5	0.5	2 27 12.33	1	+ 4.074	+ .016	56.9	38 39 10.7	1	- 16.06	- 0.08	56.4
789 B.A.C.....	6.7	1	2 27 39.74	1	+ 3.168	+ .002	57.0	83 8 23.0	1	- 16.04	+ 0.12	57.0
79 Ceti.....	7.0	...	2 28 18.93	1	+ 3.014	- .007	56.9	94 9 29.8	1	- 16.00	+ 0.42	56.9
v Ceti.....*	5.0	...	2 28 30	..	+ 3.142	- .008	...	85 1 8.3	1	- 15.99	+ 0.03	56.0
31 Arietis.....	5.5	...	2 29 0.06	2	+ 3.241	+ .020	56.0	78 9 39.6	2	- 15.96	+ 0.05	56.0
802 B.A.C.....	7.3	2	2 30 25	.	+ 5.038	+ .051	...	22 32 25.5	3	- 15.89	+ 0.01	56.6
374 Carrington	8.9	4	2 30 31.20	8	+ 12.951	...	55.6	4 43 27.9	1	- 15.88	...	54.9
810 B.A.C.....	6.9	3	2 31 31.45	3	+ 3.217	+ .027	56.9	79 58 ...	..	- 15.83	+ 0.21	...
377 Carrington	8.9	4	2 31 59.05	8	+ 13.055	...	55.6	4 42 53.2	1	- 15.80	...	55.0
ε Ceti	4.7	...	2 32 47.26	1	+ 2.889	+ .011	55.9	102 28 7.8	2	- 15.76	+ 0.23	55.4
12 Persei.....	5.0	...	2 33 25.39	3	+ 3.759	- .002	54.7	50 24 3.6	2	- 15.73	+ 0.18	56.9
84 Ceti.....	6.5	1	2 34 3.81	1	+ 3.053	+ .005	56.9	91 17 36.5	1	- 15.69	+ 0.12	56.9
θ Persei.....	4.0	...	2 34 39.32	1	+ 4.020	+ .033	57.0	41 22 ...	..	- 15.66	+ 0.14	...
γ Ceti	3.3	...	2 36 2.94	7	+ 3.111	- .011	56.2	87 21 22.2	7	- 15.58	+ 0.19	55.7
38 Arietis	5.0	...	2 37 20	..	+ 3.249	+ .008	...	78 8 43.7	2	- 15.51	+ 0.10	54.5
845 B.A.C.....	4.0	...	2 37 22.70	3	+ 3.214	+ .017	54.9	80 28 43.5	2	- 15.51	+ 0.07	56.0
398 Carrington	8.8	5.5	2 37 36.56	8	+ 11.234	...	55.4	5 56 ...	..	- 15.50	...	...
τ ¹ Eridani ...	4.3	...	2 38 34.48	1	+ 2.775	+ .026	56.9	109 10 2.1	1	- 15.44	- 0.03	55.0
39 Arietis	5.0	...	2 39 34.69	2	+ 3.540	+ .009	56.9	61 20 10.6	1	- 15.39	+ 0.11	56.9
41 Arietis.....	4.0	...	2 41 45.03	2	+ 3.507	+ .003	55.9	63 19 8.2	3	- 15.26	+ 0.13	56.3
16 Persei.....	4.7	...	2 41 45.42	3	+ 3.743	+ .020	56.9	52 15 35.4	2	- 15.26	+ 0.08	56.0
17 Persei.....	5.0	...	2 42 53.76	1	+ 3.671	+ .006	55.9	55 31 8.0	3	- 15.20	+ 0.11	56.9
422 Carrington	7.7	7	2 47 42.41	10	+ 12.016	...	55.5	5 42 ...	..	- 14.92	...	...
ρ ³ Arietis.....	6.0	2	2 48 32.16	2	+ 3.354	+ .018	56.9	72 32 15.2	2	- 14.88	+ 0.20	54.4
426 Carrington	7.9	7	2 49 14.20	8	+ 12.313	...	55.5	5 33 45.4	1	- 14.83	...	55.0
η Eridani	3.0	...	2 49 35.61	2	+ 2.922	+ .008	56.9	99 27 25.9	2	- 14.81	+ 0.22	56.0
47 Arietis	6.5	1	2 50 4.69	1	+ 3.403	+ .016	55.9	69 53 42.8	2	- 14.78	+ 0.03	56.9
908 B.A.C.....	6.3	1	2 50 17.69	1	+ 8.736	- .042	56.9	9 5 ...	..	- 14.76	- 0.02	...
ε Arietis.....*	4.3	...	2 51 12.75	1	+ 3.417	- .001	55.9	69 13 18.0	3	- 14.71	+ 0.02	56.3
932 B.A.C.....	7.3	1	2 52 30.74	1	+ 3.725	+ .010	56.9	54 26 25.9	1	- 14.64	+ 0.09	56.9
51 Arietis	7.0	...	2 54 10	..	+ 3.522	+ .025	...	63 56 20.5	2	- 14.54	+ 0.12	56.0
ρ ¹ Eridani	6.0	...	2 54 17.25	1	+ 2.939	+ 0.10	56.9	98 13 2.7	1	- 14.53	+ 0.07	56.9
α Ceti	2.3	...	2 54 57.85	5	+ 3.129	- .002	55.6	86 27 42.5	3	- 14.49	+ 0.11	54.3
951 B.A.C.....	6.0	...	2 55 35	..	+ 2.566	+ .017	...	118 37 41.6	1	- 14.45	+ 0.28	55.0

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
ρ Persei	4.0	...	2 56 12.99	3	+ 3.806	+ .013	56.3	51 43 ... ..	...	- 14.41	+ 0.08	...
τ^3 Eridani	3.7	...	2 56 13.02	1	+ 2.654	- .010	55.9	114 10 32.3	1	- 14.41	+ 0.08	56.9
955 B.A.C.	4.7	...	2 56 50	...	+ 6.293	- .027	...	16 8 36.0	1	- 14.38	+ 0.07	56.0
ϵ Persei	4.0	...	2 58 58.94	2	+ 4.157	+ .129	56.9	40 55 31.4	3	- 14.25	0.00	56.3
β Persei	Var.	...	2 59 4.24	2	+ 3.874	- .002	55.9	49 35 14.2	1	- 14.24	- 0.01	57.0
595 Gr.	5.7	1	2 59 51.08	9	+ 12.716	...	55.7	5 35 43.0	3	- 14.19	+ 0.08	56.0
κ Persei	4.3	...	3 0 4.01	3	+ 3.995	+ .016	56.6	45 40 34.8	1	- 14.18	+ 0.15	57.0
976 B.A.C.	6.6	3	3 1 18.78	3	+ 3.422	+ .005	56.0	69 46 35.2	3	- 14.10	+ 0.25	55.3
δ Arietis	4.3	...	3 3 37.77	4	+ 3.406	+ .010	55.9	70 48 19.3	4	- 13.95	0.00	55.5
94 Ceti	5.0	...	3 5 37.80	2	+ 3.043	+ .017	56.0	91 43 21.1	3	- 13.83	+ 0.08	56.9
12 Eridani	3.3	...	3 6 7.51	4	+ 2.522	+ .025	56.4	119 32 28.3	2	- 13.80	- 0.62	56.9
ζ Arietis	4.3	...	3 6 51.63	3	+ 3.436	- .006	55.6	69 28 35.9	3	- 13.75	+ 0.07	55.9
14 Eridani	6.3	...	3 9 48.67	2	+ 2.904	+ .015	56.5	99 41 ... ..	...	- 13.56	+ 0.10	...
95 Ceti	5.5	...	3 11 12.68	1	+ 3.047	+ .020	56.9	91 26 32.6	3	- 13.47	+ 0.09	56.0
1025 B.A.C.	5.5	...	3 11 52.73	1	+ 3.612	+ .023	56.0	61 27 42.5	3	- 13.43	+ 0.06	56.9
1024 B.A.C.	6.5	2	3 11 57.87	2	+ 4.197	+ .021	56.0	41 26 11.0	1	- 13.42	+ 0.15	56.9
κ^1 Ceti	5.0	...	3 12 1.32	1	+ 3.121	+ .020	55.9	87 8 44.2	2	- 13.42	+ 0.02	55.0
60 Arietis	6.7	2	3 12 7.97	2	+ 3.539	- .008	56.9	64 51 ... ..	...	- 13.41	+ 0.13	...
τ^1 Arietis	5.0	...	3 13 9.00	2	+ 3.447	- .001	56.0	69 21 35.7	6	- 13.34	+ 0.03	55.5
α Persei	2.0	...	3 14 20.74	5	+ 4.240	+ .002	56.2	40 38 28.9	1	- 13.27	+ 0.05	57.0
1055 B.A.C.	7.3	1	3 16 26.59	1	+ 3.471	+ .011	57.0	68 27 ... ..	...	- 13.13	...	...
1063 B.A.C.	6.0	1	3 18 50.93	3	+ 4.260	+ .019	54.7	40 38 30.1	1	- 12.97	+ 0.09	56.0
1073 B.A.C.	6.0	...	3 20 28.10	1	+ 2.531	+ .006	57.0	117 48 38.4	1	- 12.86	- 0.66	57.0
642 Gr.	6.1	3	3 21 0.45	8	+ 18.532	...	55.5	3 48 ... ..	...	- 12.82	...	...
1089 B.A.C.	7.0	1	3 23 26.87	2	+ 4.201	+ .021	56.5	42 31 42.1	1	- 12.66	0.00	57.0
1096 B.A.C.	7.0	1	3 26 10.14	1	+ 3.400	- .021	56.0	72 37 45.1	2	- 12.47	+ 0.38	55.0
ϵ Eridani	3.0	...	3 26 20.26	5	+ 2.889	- .061	55.9	99 56 3.6	4	- 12.46	+ 0.03	55.5
1110 B.A.C.	6.3	0.5	3 29 36.50	2	+ 3.074	+ .009	56.0	89 52 19.3	1	- 12.24	+ 0.20	55.0
10 Tauri	4.3	...	3 29 43.84	3	+ 3.071	- .011	56.0	90 2 43.3	6	- 12.22	+ 0.52	55.9
1121 B.A.C.	6.0	...	3 31 25.97	1	+ 2.449	- .027	56.0	120 17 ... ..	...	- 12.11	- 0.75	...
1123 B.A.C.	6.0	1	3 32 1.81	2	+ 3.880	+ .025	56.0	52 52 29.7	3	- 12.07	- 0.07	56.0
21 Eridani	6.3	...	3 32 6.51	3	+ 2.958	- .004	55.0	96 4 40.1	2	- 12.06	+ 0.21	56.9
1127 B.A.C.	6.5	1	3 32 48.60	1	+ 5.565	+ .033	57.0	23 14 ... ..	...	- 12.02	- 0.01	...
δ Persei	3.0	...	3 32 58.24	7	+ 4.234	+ .001	55.6	42 40 ... ..	...	- 12.01	+ 0.05	...
γ Camelopardi	4.3	...	3 35 38.50	2	+ 6.191	- .035	56.0	19 6 ... ..	...	- 11.82	+ 0.03	...

Nos. 276—310.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
14 Tauri.....	7.0	...	3 35 41.85	1	+ 3.449	+ .012	56.0	70 47 ...	...	- 11.81	+ 0.02	...
δ Eridani.....	3.0	...	3 36 32.65	3	+ 2.877	- .004	56.0	100 14 24.1	3	- 11.75	- 0.73	56.3
17 Tauri*	4.0	...	3 36 34.00	1	+ 3.547	.000	55.0	66 19 46.4	1	- 11.75	+ 0.04	55.0
18 Tauri*	6.9	2	3 36 48.77	2	+ 3.564	- .002	56.4	65 36 ...	...	- 11.73	+ 0.11	...
1155 B.A.C.	7.0	1	3 37 33.26	2	+ 3.527	+ .017	56.5	67 18 ...	...	- 11.68	+ 0.11	...
1163 B.A.C.	6.7	2	3 38 39.29	2	+ 3.560	+ .025	55.9	65 55 0.8	1	- 11.60	+ 0.06	55.0
24 Tauri*	6.7	3	3 39 2.05	5	+ 3.551	- .001	55.2	66 19 ...	...	- 11.58	+ 0.12	...
η Tauri.....	3.0	...	3 39 10.09	9	+ 3.551	- .001	55.6	66 19 50.8	6	- 11.57	+ 0.06	54.7
τ ⁶ Eridani.....	4.0	...	3 40 49.54	2	+ 2.590	- .007	55.0	113 40 ...	...	- 11.45	+ 0.51	...
1187 B.A.C.	7.7	1	3 41 36.43	1	+ 3.560	+ .005	56.0	66 5 ...	...	- 11.39	+ 0.29	...
1205 B.A.C.	7.4	1.5	3 45 2.26	2	+ 3.042	...	56.5	91 34 17.3	4	- 11.14	+ 0.10	56.0
43 Persei A...	5.5	2	3 46 12.90	4	+ 4.415	+ .013	55.3	39 42 50.8	2	- 11.05	+ 0.16	54.5
1222 B.A.C.	6.0	...	3 48 30.39	1	+ 2.472	- .001	56.0	118 5 8.2	2	- 10.89	+ 0.35	54.5
γ ¹ Eridani	3.0	...	3 51 29.91	5	+ 2.792	+ .002	55.8	103 54 35.5	3	- 10.66	+ 0.12	55.9
λ Tauri.....	Var.	...	3 52 55.65	2	+ 3.315	- .002	56.5	77 54 29.2	3	- 10.56	+ 0.02	56.7
750 Gr.	6.4	6	3 53 47.75	9	+ 16.582	+ .057	55.5	4 49 15.5	2	- 10.50	- 0.05	54.1
1247 B.A.C.	5.5	1	3 56 9.42	2	+ 13.063	+ .072	57.0	6 33 ...	...	- 10.32	- 0.02	...
37 Tauri A ¹ *	4.7	...	3 56 25.51	1	+ 3.529	+ .004	56.0	68 18 ...	...	- 10.30	+ 0.09	...
39 Tauri A ² ...	5.8	1.5	3 57 3.17	2	+ 3.528	+ .009	56.0	68 22 19.5	3	- 10.25	+ 0.14	55.7
1264 B.A.C.	7.5	...	3 58 15.05	2	+ 3.962	+ .017	54.5	52 18 ...	...	- 10.16	+ 0.25	...
49 Persei.....	6.7	2	3 59 0.70	2	+ 3.954	- .005	56.5	52 38 36.8	2	- 10.10	+ 0.14	54.5
50 Persei.....	6.0	...	3 59 17.23	3	+ 3.964	+ .019	54.7	52 19 49.5	2	- 10.08	+ 0.20	55.5
1273 B.A.C.	6.0	...	3 59 51.31	1	+ 2.455	+ .015	56.0	118 2 ...	...	- 10.04	- 0.14	...
ω ¹ Tauri*	5.7	0.5	4 1 0.83	3	+ 3.477	+ .010	56.0	70 45 52.3	3	- 9.95	+ 0.06	55.9
45 Tauri.....	6.1	2	4 3 53.28	3	+ 3.177	+ .012	54.7	84 50 40.0	3	- 9.73	+ 0.05	55.7
1286 B.A.C.	6.4	2	4 4 35.13	3	+ 5.228	- .018	56.4	28 30 ...	...	- 9.68	+ 0.01	...
o ¹ Eridani	4.3	...	4 5 1.80	1	+ 2.924	.000	56.0	97 12 20.5	1	- 9.64	- 0.06	57.0
39 Eridani A.	5.0	...	4 7 44.15	2	+ 2.851	+ .002	56.0	100 36 25.5	1	- 9.43	+ 0.18	54.1
48 Tauri*	6.0	...	4 7 49.59	2	+ 3.389	+ .008	56.5	74 57 9.0	4	- 9.43	+ 0.02	56.0
1308 B.A.C.	6.0	...	4 8 29.80	1	+ 2.377	- .042	56.0	120 28 ...	...	- 9.38	- 0.84	...
o ² Eridani	4.7	...	4 8 49.80	1	+ 2.909	- .144	56.0	97 52 24.7	2	- 9.35	+ 3.45	57.0
1313 B.A.C.	5.5	1	4 9 38.58	1	+ 5.158	+ .029	55.0	29 36 ...	...	- 9.29	+ 0.07	...
51 Tauri.....	7.0	...	4 10 6.51	1	+ 3.533	+ .012	56.0	68 45 57.2	1	- 9.25	0.00	55.0
γ Tauri.....	4.0	...	4 11 49.78	4	+ 3.397	+ .009	54.5	74 42 50.9	4	- 9.12	+ 0.03	56.1
55 Tauri*	7.3	1	4 11 54.21	2	+ 3.417	+ .011	56.1	73 49 ...	...	- 9.11	+ 0.03	...

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
57 Tauri <i>h</i>	6.0	1	4 12 4.82	2	+ 3.362	+ .011	56.5	76 18 ...	..	— 9.10	+ 0.01	...
58 Tauri	5.7	1	4 12 40.16	2	+ 3.386	+ .010	56.5	75 14 37.5	1	— 9.05	+ 0.05	55.0
1335 B.A.C.	6.5	1	4 13 0.41	1	+ 3.359	+ .013	56.0	76 28 ...	..	— 9.03	+ 0.02	...
1337 B.A.C.	7.3	1	4 13 16.33	1	+ 3.523	+ .020	56.0	69 17 47.7	1	— 9.01	+ 0.08	57.0
60 Tauri	5.7	0.5	4 14 10.27	1	+ 3.364	+ .010	56.0	76 15 ...	..	— 8.94	+ 0.01	...
δ ¹ Tauri.....*	4.0	...	4 14 51.86	5	+ 3.443	+ .004	55.6	72 47 19.8	5	— 8.88	+ 0.03	56.0
63 Tauri	6.0	1	4 15 23.31	1	+ 3.426	+ .010	57.0	73 33 12.6	2	— 8.84	— 0.01	56.5
δ ² Tauri.....*	5.0	1	4 16 1.75	2	+ 3.442	+ .007	56.0	72 53 0.6	1	— 8.79	+ 0.04	54.1
κ ² Tauri.....	6.5	...	4 17 4.89	1	+ 3.555	+ .010	57.0	68 7 ...	..	— 8.71	+ 0.02	...
δ ³ Tauri.....	5.0	...	4 17 20	..	+ 3.454	+ .008	...	72 23 45.1	2	— 8.68	— 0.01	54.6
ν ¹ Tauri.....*	4.7	...	4 17 56.14	1	+ 3.572	+ .007	55.0	67 30 26.9	1	— 8.64	+ 0.05	57.0
ε Tauri.....	3.7	...	4 20 26.68	6	+ 3.486	+ .005	55.5	71 7 59.2	3	— 8.44	+ 0.03	55.7
R Tauri.....	Var.	2	4 20 37.73	3	+ 3.283	...	56.4	80 9 ...	..	— 8.43	...	...
θ ² Tauri.....	4.3	...	4 20 40	..	+ 3.410	+ .007	...	74 26 35.5	1	— 8.42	+ 0.02	57.0
79 Tauri <i>b</i>	6.0	3	4 20 59.72	1	+ 3.346	+ .011	56.0	77 15 55.6	3	— 8.40	+ 0.01	55.0
1391 B.A.C.	5.0	...	4 22 33.20	1	+ 3.418	+ .011	56.0	74 6 50.9	3	— 8.27	+ 0.04	55.1
81 Tauri	6.0?	...	4 22 39.90	1	+ 3.407	+ .013	57.0	74 36 59.1	1	— 8.26	+ 0.01	57.0
83 Tauri	6.0	...	4 22 44.63	1	+ 3.362	+ .010	57.0	76 38 ...	..	— 8.26	+ 0.02	...
1404 B.A.C.	6.0	...	4 24 53.67	1	+ 2.345	+ .021	56.0	120 48 ...	..	— 8.09	+ 0.05	...
1408 B.A.C.	6.7	1	4 25 52.71	2	+ 3.742	+ .011	55.0	61 20 5.7	1	— 8.01	+ 0.09	56.0
ρ Tauri	5.0	...	4 25 54.35	1	+ 3.390	+ .008	56.0	75 27 12.5	3	— 8.00	+ 0.04	56.7
Aldebaran.....	1.0	...	4 27 53.42	8	+ 3.430	+ .004	55.5	73 46 31.6	7	— 7.84	+ 0.17	55.6
ν ⁶ Eridani.....	4.0	...	4 28 0.90	1	+ 2.359	— .007	56.0	120 3 4.8	3	— 7.84	+ 0.23	54.1
89 Tauri.....	6.7	2.5	4 30 8.76	2	+ 3.420	+ .012	56.5	74 15 2.1	1	— 7.66	0.00	55.0
90 Tauri <i>c</i> ¹ ...	4.7	...	4 30 20.21	3	+ 3.340	+ .012	55.6	77 46 ...	..	— 7.65	+ 0.01	...
σ ² Tauri	5.0	...	4 31 16.24	4	+ 3.418	+ .010	56.0	74 21 45.0	2	— 7.57	+ 0.01	56.5
53 Eridani	4.0	...	4 31 46.21	3	+ 2.750	+ .023	56.0	104 34 51.3	3	— 7.53	+ 0.16	55.1
662 Carrington	3.2	4.5	4 31 54.42	9	+ 21.169	...	55.6	3 55 2.9	1	— 7.52	...	56.5
1446 B.A.C.	6.0	...	4 32 53.53	1	+ 2.747	+ .009	57.0	104 40 ...	..	— 7.44	+ 0.15	...
τ Tauri (1st) ..	8.5	...	4 33 50	..	+ 3.591	...	...	67 19 45.8	1	— 7.36	...	56.0
τ Tauri (2d) *	5.0	...	4 33 50	..	+ 3.591	.000	...	67 18 54.7	1	— 7.36	+ 0.02	57.0
1450 B.A.C.	6.3	0.5	4 34 17.55	2	+ 2.498	— .002	56.5	114 48 ...	..	— 7.33	+ 0.11	...
54 Eridani	5.0	...	4 34 18.82	1	+ 2.620	+ .004	56.0	109 56 34.0	2	— 7.32	+ 0.11	54.1
4 Camelopardi	5.5	1	4 36 21.39	3	+ 4.960	+ .002	56.4	33 29 49.2	1	— 7.16	+ 0.17	57.0
1471 B.A.C.	6.0	...	4 38 37.21	1	+ 2.410	— .010	56.0	117 50 15.9	1	— 6.97	— 0.60	54.1

Nos. 346—380

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
1478 B.A.C.	7.5	3	4 40 30.55	2	+	3.492	+ .013 54.1	71 31 38.1	3	—	6.82	+ 0.40 54.1
58 Eridani	6.0	2	4 41 19.20	3	+	2.682	+ .014 56.4	107 14 ...	..	—	6.75	— 0.19 ...
π^1 Orionis	4.0	...	4 42 14.45	2	+	3.221	+ .039 56.1	83 17 11.9	3	—	6.68	+ 0.01 54.7
698 Carrington	6.7	3.5	4 42 40.43	5	+	20.102	... 54.7	4 14 15.4	1	—	6.64	... 56.5
1490 B.A.C.	7.3	1	4 42 58.18	1	+	4.002	+ .016 56.0	53 38 ...	..	—	6.61	— 0.11 ...
π^2 Orionis	4.7	...	4 42 59.09	1	+	3.264	+ .010 57.0	81 20 37.0	1	—	6.61	+ 0.03 56.1
1496 B.A.C.	6.0	1	4 44 37.59	1	+	7.497	— .025 57.0	15 57 19.6	3	—	6.48	+ 0.02 56.7
704 Carrington	8.2	4	4 46 44.55	5	+	19.368	... 55.7	4 27 ...	..	—	6.30	... ..
1510 B.A.C.	6.0	1	4 47 3.82	1	+	7.457	— .027 56.0	16 8 50.1	1	—	6.28	0.00 56.0
π^3 Orionis	5.0	...	4 47 11.52	4	+	3.294	+ .006 56.1	80 4 30.3	3	—	6.26	+ 0.18 54.8
ϵ Aurigæ 3.0	...		4 47 52.81	2	+	3.896	— .003 55.0	57 3 31.0	2	—	6.21	+ 0.02 55.0
1522 B.A.C.	6.7	2	4 48 40.81	1	+	6.016	+ .017 57.0	23 22 48.4	2	—	6.14	+ 0.52 56.6
1531 B.A.C.	6.0	...	4 49 46.28	1	+	2.451	.000 56.0	115 57 19.4	2	—	6.05	+ 0.58 54.1
101 Tauri 7.0	...		4 51 40	..	+	3.432	+ .010 ...	74 17 53.1	2	—	5.89	+ 0.02 55.1
ϵ Aurigæ Var.	...		4 51 55.81	1	+	4.290	.000 57.0	46 25 ...	..	—	5.87	0.00 ...
1542 B.A.C.	7.0	1	4 52 37.53	1	+	3.395	+ .010 57.0	75 52 ...	..	—	5.81	— 0.01 ...
R Leporis Var.	1.5		4 53 14.01	3	+	2.728	... 56.1	105 1 10.3	1	—	5.76	... 56.0
63 Eridani	6.0	...	4 53 10	..	+	2.835	+ .006 ...	100 28 18.1	1	—	5.76	+ 0.12 57.0
ϵ Tauri 5.0	...		4 54 43.85	5	+	3.574	+ .004 54.8	68 36 47.2	3	—	5.64	+ 0.06 54.4
1550 B.A.C. ....	...	...	4 54 50	..	+	8.333	— .045 ...	13 42 47.3	2	—	5.62	— 0.04 56.6
9 Aurigæ 5.0	...		4 55 43.36	2	+	4.682	.000 55.1	38 35 35.9	2	—	5.55	+ 0.15 56.3
727 Carrington	6.8	11	4 56 42.37	11	+	19.537	... 55.8	4 28 ...	..	—	5.47	... ..
104 Tauri m. 5.7	1		4 59 10.68	6	+	3.503	+ .045 54.7	71 32 47.0	3	—	5.26	— 0.03 54.8
ϵ Leporis 3.7	...		4 59 32.14	1	+	2.535	.000 55.1	112 33 44.0	1	—	5.23	+ 0.07 57.0
1565 B.A.C.	5.0	...	4 59 33.76	1	+	9.749	— .054 55.0	10 56 26.9	5	—	5.23	— 0.05 56.1
β Eridani 3.0	...		5 0 58.19	1	+	2.952	— .003 57.0	95 16 13.8	4	—	5.11	+ 0.08 55.1
12 Aurigæ 7.3	1		5 6 5.37	2	+	4.430	— .010 56.1	43 44 54.4	1	—	4.67	+ 0.03 57.0
Capella 1.0	...		5 6 21.15	2	+	4.412	+ .008 55.1	44 8 57.0	3	—	4.65	+ 0.43 54.7
Rigel 1.0	...		5 7 48.64	3	+	2.880	— .001 54.1	98 21 59.0	6	—	4.53	+ 0.02 54.6
16 Aurigæ 5.0	...		5 8 59.60	1	+	3.926	+ .003 56.0	56 48 ...	..	—	4.43	+ 0.15 ...
λ Aurigæ 5.0	...		5 9 17.71	2	+	4.165	+ .043 54.6	50 1 47.3	1	—	4.40	+ 0.70 57.0
1661 B.A.C.	8.2	1.5	5 14 43.83	2	+	3.151	— .065 54.4	86 34 9.1	3	—	3.93	— 0.01 54.8
1670 B.A.C.	6.0	1	5 16 0	..	+	2.462	— .005 ...	114 54 42.3	4	—	3.82	+ 0.22 54.8
111 Tauri 6.0	2		5 16 15.37	1	+	3.480	+ .020 57.0	72 45 0.8	3	—	3.81	— 0.04 55.1
1678 B.A.C.	6.5	...	5 16 40	..	+	3.048	— .010 ...	91 0 5.3	1	—	3.77	... 57.0

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
27 Orionis p ..	5.5	1	5 17 21.82	2	+ 3.048	+ .005	54.1	91 2	—	3.71	— 0.10	...
β Tauri.....	2.0	...	5 17 26.72	5	+ 3.785	+ .003	55.5	61 30 50.9 4	—	3.70	+ 0.20	55.6
944 Gr.	6.1	3	5 17 32.00	6	+ 18.439	...	55.6	4 53	—	3.69	...	...
γ Orionis.....	2.0	...	5 17 37.40	1	+ 3.216	+ .002	54.1	83 46 49.8 1	—	3.69	+ 0.04	56.1
1696 B.A.C.	7.5	1	5 19 10	..	+ 3.136	— .010	...	87 11 22.7 1	—	3.55	0.00	55.1
114 Tauri o *	6.0	...	5 19 13.65	1	+ 3.599	— .001	55.0	68 11 11.1 2	—	3.55	+ 0.01	54.1
1708 B.A.C.	6.0	...	5 20 33.72	1	+ 2.791	+ .035	57.0	102 2	—	3.43	+ 0.06	...
1706 B.A.C.	6.0	...	5 21 5	..	+ 7.971	+ .041	...	15 3 28.7 2	—	3.39	0.00	55.1
1713 B.A.C.	6.0	...	5 21 47.35	2	+ 2.408	+ .015	56.1	116 42 12.6 2	—	3.33	+ 0.34	54.6
956 Gr.	8.0	1	5 21 59.59	1	+ 18.879	...	55.5	4 46	—	3.31	...	...
783 Carrington	8.0	10	5 24 39.81	11	+ 31.117	...	55.5	2 41 52.2 2	—	3.08	...	56.6
δ Orionis.....	2.0	...	5 24 51.34	3	+ 3.063	+ .001	55.1	90 24 23.3 9	—	3.07	+ 0.04	54.8
α Leporis.....	3.0	...	5 26 33.57	3	+ 2.644	+ .001	55.1	107 55 31.7 1	—	2.91	0.00	57.0
22 Camelop. ...	7.2	2	5 27 16.38	2	+ 5.054	— .005	56.1	33 43 35.2 2	—	2.85	+ 0.12	56.6
21 Camelop. ...	7.2	2	5 27 30	..	+ 5.547	— .019	...	28 8 23.6 3	—	2.83	— 0.03	56.4
θ^1 Orionis (1st)	7.0	...	5 28 23.34	1	+ 2.944	.000	56.1	95 30	—	2.76	...	...
θ^1 Orionis (3d)	4.7	...	5 28 23.84	1	+ 2.944	.000	56.0	95 30	—	2.76	— 0.03	...
ϵ Orionis.....	2.0	...	5 29 6.61	3	+ 3.042	— .002	54.1	91 17 42.1 6	—	2.70	+ 0.01	54.1
ϕ^2 Orionis ...	4.7	...	5 29 13.12	3	+ 3.287	+ .007	55.1	80 47 19.0 3	—	2.69	+ 0.33	55.1
ζ Tauri *	3.3	...	5 29 16.70	3	+ 3.582	.000	56.1	68 56 46.8 3	—	2.68	+ 0.05	56.1
ζ Orionis.....	2.0	...	5 33 41.75	3	+ 3.025	+ .002	55.1	92 1 12.2 6	—	2.30	+ 0.03	55.4
1796 B.A.C.	7.5	2	5 34 14.69	2	+ 3.527	+ .007	56.1	71 5	—	2.25	+ 0.17	...
α Columbæ ...	2.0	...	5 34 35.05	3	+ 2.170	+ .008	54.8	124 9	—	2.22	...	...
σ Aurigæ.....	6.3	2	5 35 3.51	3	+ 4.642	+ .010	55.1	40 14 25.1 2	—	2.18	+ 0.08	56.3
1808 B.A.C.	7.7	1	5 36 31.23	1	+ 3.428	+ .011	56.1	75 0 6.1 2	—	2.05	+ 0.05	54.1
γ Leporis.....	4.0	...	5 38 37.86	3	+ 2.520	— .023	55.1	112 29 47.0 4	—	1.87	+ 0.37	54.6
1829 B.A.C.	7.0	1	5 39 20.31	1	+ 3.683	— .001	55.1	65 22	—	1.80	— 0.28	...
κ Orionis.....	2.7	...	5 41 7.14	3	+ 2.843	+ .004	54.1	99 43 21.2 3	—	1.65	+ 0.03	54.8
1850 B.A.C.	6.5	2	5 42 18.46	3	+ 3.908	+ .025	55.1	57 55	—	1.54	— 0.04	...
1851 B.A.C.	6.5	1.5	5 42 20.11	1	+ 3.302	+ .007	56.1	80 10 32.4 3	—	1.54	+ 0.19	54.8
136 Tauri ... *	5.0	...	5 44 31.68	1	+ 3.768	— .001	56.1	62 25 29.5 2	—	1.35	+ 0.07	55.1
δ Leporis.....	4.0	...	5 45 20	..	+ 2.562	+ .017	...	110 53 38.0 2	—	1.28	+ 0.66	54.1
χ^1 Orionis.....	4.7	...	5 46 10	..	+ 3.564	— .016	...	69 45 13.2 2	—	1.22	+ 0.10	55.1
1874 B.A.C.	6.4	1.5	5 46 17.70	3	+ 6.215	— .031	54.1	23 0 24.2 1	—	1.20	— 0.05	56.1
α Orionis.....	Var.	...	5 47 35.64	5	+ 3.244	+ .001	56.1	82 37 20.5 5	—	1.08	0.00	54.9

Nos. 416-450.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
1881 B.A.C.	6.0	1	5 47 47.96	1	+ 6.200	-.021	54.2	23 7 ...	..	- 1.07	+ 0.04	...
β Aurigæ.....	2.0	...	5 49 15.67	2	+ 4.405	+.001	54.1	45 4 ...	..	- 0.94	+ 0.03	...
η Leporis.....	3.7	...	5 50 0	..	+ 2.734	-.002	...	104 11 47.6	3	- 0.87	- 0.14	54.8
θ Aurigæ.....	3.0	...	5 50 10.60	3	+ 4.086	+.004	55.1	52 48 4.9	2	- 0.86	+ 0.11	54.6
1004 Gr.	6.5	7	5 50 14.91	10	+ 26.671	...	55.1	3 14 23.7	3	- 0.85	...	54.1
140 Tanri.....	7.8	3	5 51 59.11	1	+ 3.636	+.010	56.1	67 6 43.6	2	- 0.70	+ 0.03	54.2
38 Aurigæ	6.5	3	5 53 12.48	5	+ 4.314	+.015	54.5	47 5 ...	..	- 0.59	+ 0.15	...
χ^3 Orionis	5.7	6	5 55 10.20	6	+ 3.550	+.010	54.8	70 18 37.8	4	- 0.42	+ 0.04	54.6
1 Geminorum.	5.0	...	5 55 36.75	3	+ 3.646	-.002	55.1	66 43 57.6	2	- 0.39	+ 0.11	54.1
36 Camelop. ..	5.7	2	5 58 46.00	3	+ 6.038	-.011	54.1	24 15 40.3	2	- 0.11	+ 0.07	54.1
ν Orionis	4.7	...	5 59 34.78	5	+ 3.424	+.001	55.5	75 13 6.1	4	- 0.04	+ 0.02	56.1
41 Aurigæ (1st)	7.8	3	6 0 53.10	3	+ 4.595	+.012	54.1	41 15 47.9	2	+ 0.08	+ 0.12	54.2
41 Aurigæ (2d)	...	...	6 0 53.28	3	+ 4.595	+.012	54.1	41 15 57.6	2	+ 0.08	+ 0.12	54.1
η Geminor. *	3.3	...	6 6 25.60	3	+ 3.627	-.007	54.1	67 27 22.3	5	+ 0.56	+ 0.02	55.1
κ Aurigæ.....	4.7	...	6 6 27.46	5	+ 3.829	-.005	54.9	60 27 16.4	7	+ 0.57	+ 0.29	54.1
71 Orionis	6.2	5	6 6 36.71	3	+ 3.537	-.005	55.1	70 47 59.0	3	+ 0.58	+ 0.26	54.8
43 Aurigæ	6.7	2	6 7 50.50	3	+ 4.476	+.002	54.4	43 35 26.6	1	+ 0.69	+ 0.11	56.6
5 Monocerotis	4.7	...	6 8 1.71	4	+ 2.926	+.003	54.9	96 14 8.2	4	+ 0.70	+ 0.13	54.7
2014 B.A.C.	7.0	2	6 8 10	..	+ 4.014	-.013	...	54 48 28.5	2	+ 0.72	- 0.02	55.1
75 Orionis L...	5.9	3	6 9 23.55	2	+ 3.307	+.001	56.1	80 0 36.9	1	+ 0.82	+ 0.08	55.1
μ Geminorum	3.0	...	6 14 29.48	6	+ 3.627	+.005	55.3	67 25 5.9	8	+ 1.27	+ 0.14	54.9
ζ Can. Maj....	2.7	...	6 14 56.40	3	+ 2.301	+.004	54.1	120 0 10.7	6	+ 1.31	+ 0.03	54.6
β Can. Maj. ..	2.7	...	6 16 32.25	2	+ 2.641	+.001	55.1	107 53 22.0	5	+ 1.45	+ 0.02	54.9
6 Lyncis.....	6.3	1	6 18 37	..	+ 5.226	+.001	...	31 44 24.5	1	+ 1.63	+ 0.36	56.6
2076 B.A.C.	7.9	4	6 19 10.63	3	+ 3.990	-.013	54.4	55 25 34.5	2	+ 1.68	+ 0.01	54.2
78 Orionis	6.5	4	6 20 6.30	3	+ 3.067	+.010	55.1	90 11 43.7	2	+ 1.76	+ 0.08	54.1
ν Geminor. *	4.7	...	6 20 39.12	3	+ 3.564	-.002	55.1	69 42 10.4	5	+ 1.81	+ 0.01	55.7
2095 B.A.C.	5.8	?	6 22 17.04	1	+ 10.399	+.041	55.1	10 17 43.7	3	+ 1.95	+ 0.61	54.9
7 Lyncis	6.9	2.5	6 22 53.68	1	+ 5.004	+.019	56.2	34 33 0.9	2	+ 2.00	+ 0.03	55.1
8 Lyncis	6.0	2	6 24 53.31	3	+ 5.531	-.035	55.1	28 24 ...	..	+ 2.17	+ 0.25	...
10 Lyncis	7.0	4	6 25 44.42	3	+ 5.528	-.029	55.1	28 24 44.7	2	+ 2.25	+ 0.01	54.1
2147 B.A.C.	5.5	...	6 27 24.94	2	+ 2.244	+.021	54.6	121 56 ...	..	+ 2.40	+ 0.11	...
41 Camelop. ..	7.0	3.5	6 27 34.26	1	+ 5.572	-.018	56.2	27 57 46.7	3	+ 2.41	- 0.01	55.6
51 Aurigæ	5.8	3	6 28 57.31	4	+ 4.166	-.002	54.6	50 29 22.8	2	+ 2.53	+ 0.11	56.2
ξ^2 Can. Maj. .	5.0	...	6 29 10	..	+ 2.513	+.010	...	112 51 23.7	5	+ 2.55	- 0.06	54.1

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
γ Geminorum.	2.3	...	6 29 37.47	5	+ 3.465	+ .001	55.1	73 29 6.4	8	+ 2.59	+ 0.04	55.1
2183 B.A.C.	6.0	1	6 32 33.22	3	+ 2.238	+ .017	55.1	122 13 ...	...	+ 2.84	- 0.09	...
51 Cephei	5.0	...	6 33 39.69	7	+ 30.591	- .027	54.6	2 45 5.9	14	+ 2.93	+ 0.08	54.4
12 Lynceis (2d)	5.0	...	6 33 51.90	1	+ 5.324	- .022	56.2	30 25 21.2	4	+ 2.95	+ 0.02	55.2
13 Lynceis.....	5.7	1	6 34 53.04	3	+ 5.132	+ .027	55.1	32 41 27.5	1	+ 3.04	+ 0.06	56.6
ε Geminorum *	3.3	...	6 35 19.15	3	+ 3.696	.000	54.4	64 44 1.6	3	+ 3.08	+ 0.02	54.8
56 Aurigæ (1st)	6.0	3	6 36 38.68	3	+ 4.334	+ .003	55.1	46 17 ...	...	+ 3.19	- 0.14	...
56 Aurigæ (2d)	9.3	2	6 36 40.11	3	+ 4.334	...	55.1	46 17 ...	...	+ 3.19	...	...
ξ Geminorum.	3.7	...	6 37 25.91	3	+ 3.378	- .007	54.1	76 57 22.9	2	+ 3.26	+ 0.22	54.7
Sirius	1.0	...	6 38 58.68	4	+ 2.681	- .035	54.6	106 31 36.6	20	+ 3.40	+ 1.24	54.9
17 Monocerotis	6.0	1	6 39 43.73	3	+ 3.261	+ .010	55.1	81 48 54.5	1	+ 3.46	0.00	55.1
58 Aurigæ	5.0	...	6 40 51.74	3	+ 4.254	- .005	55.1	48 3 28.6	2	+ 3.56	+ 0.13	56.2
59 Aurigæ	6.2	2	6 43 23.39	3	+ 4.137	+ .011	54.1	50 58 ...	...	+ 3.78	+ 0.02	...
60 Aurigæ	6.4	3.5	6 43 37.29	5	+ 4.121	+ .016	54.5	51 23 ...	...	+ 3.79	+ 0.15	...
2244 B.A.C. . .	9.0	0.5	6 44 30.21	3	+ 2.398	+ .022	55.1	117 10 24.3	5	+ 3.87	- 0.20	54.7
15 Lynceis	5.0	...	6 45 8.72	2	+ 5.220	+ .004	55.6	31 23 59.3	1	+ 3.93	+ 0.18	56.6
2266 B.A.C.	6.3	1	6 47 59.81	3	+ 2.366	+ .035	55.1	118 21 4.0	3	+ 4.17	+ 0.33	54.1
62 Aurigæ	6.4	6	6 49 30.30	4	+ 4.101	- .001	54.7	51 45 34.8	3	+ 4.30	+ 0.10	55.1
19 Can. Maj. .	5.7	3	6 49 33.36	5	+ 2.597	+ .010	54.9	109 57 40.4	5	+ 4.30	+ 0.02	55.0
39 Geminorum	6.9	4	6 50 9.68	3	+ 3.716	- .009	55.1	63 44 19.2	3	+ 4.36	- 0.10	54.9
ε Can. Maj.	1.7	...	6 53 7.45	4	+ 2.357	.000	54.6	118 47 1.6	5	+ 4.61	+ 0.02	54.9
2301 B.A.C.	6.9	4.5	6 54 36.33	3	+ 3.809	+ .014	55.1	60 25 55.4	3	+ 4.73	+ 0.72	55.1
2303 B.A.C.	6.0	...	6 55 28.48	1	+ 2.444	- .138	55.2	115 45 15.1	3	+ 4.80	...	54.1
2304 B.A.C.	6.8	3	6 55 38.62	2	+ 3.285	+ .019	56.1	80 39 41.9	4	+ 4.82	+ 0.10	55.5
ζ Geminorum.	Var.	4	6 55 48.30	3	+ 3.564	- .001	54.1	69 13 41.8	3	+ 4.84	+ 0.01	54.8
2311 B.A.C.	7.9	9	6 56 30.03	6	+ 2.980	+ .013	54.6	94 3 51.9	3	+ 4.89	...	54.2
γ Can. Maj.	4.3	...	6 57 25.53	1	+ 2.714	+ .005	55.2	105 25 46.9	1	+ 4.98	+ 0.03	56.2
2317 B.A.C.	6.0	1	6 58 37.80	1	+ 11.726	- .088	56.7	8 30 1.1	2	+ 5.07	+ 0.01	55.7
R Geminorum	Var.	3	6 58 55.53	3	+ 3.619	...	54.1	67 5 ...	...	+ 5.10	...	...
2331 B.A.C.	7.5	5	7 0 24.03	3	+ 3.828	+ .019	55.2	59 38 1.0	3	+ 5.23	+ 0.19	54.1
τ Geminor. *	4.7	...	7 2 13.56	3	+ 3.829	- .003	55.1	59 31 44.1	3	+ 5.38	+ 0.05	55.5
δ Can. Maj.	2.0	...	7 2 42.09	6	+ 2.439	.000	54.8	116 10 23.7	5	+ 5.42	- 0.01	54.9
20 Monocerotis	5.8	4	7 3 16.47	1	+ 2.981	+ .005	56.2	94 1 18.3	3	+ 5.47	- 0.23	54.2
2347 B.A.C.	7.5	2	7 3 17.15	1	+ 3.430	+ .007	56.2	74 26 27.4	3	+ 5.47	+ 0.13	55.1
18 Lynceis.....	5.7	1	7 3 40.33	1	+ 5.289	- .017	56.7	30 7 6.7	1	+ 5.50	+ 0.29	56.2

Nos. 486-520.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
2359 B.A.C.	7.3	1	7 4 50	..	+ 3.426	+ .010	...	74 35 25.8	2	+ 5.60	+ 0.02	55.1
2363 B.A.C.	7.4	4	7 5 53.72	3	+ 3.668	-.019	55.2	65 3 12.3	2	+ 5.68	...	54.2
52 Geminor. ...	6.3	1	7 6 8.11	1	+ 3.673	+ .006	55.2	64 53 ...	..	+ 5.71	+ 0.16	...
2371 B.A.C.	6.0	...	7 6 41.10	1	+ 2.315	-.032	56.2	120 35 ...	..	+ 5.76	- 0.48	...
14038 Lalande	7.3	4	7 7 11.32	5	+ 3.595	...	54.1	67 48 ...	..	+ 5.80	...	...
2383 B.A.C.	7.1	4	7 8 22.90	2	+ 3.721	-.022	56.2	63 3 41.8	3	+ 5.89	+ 0.12	54.2
2377 B.A.C.	6.4	2	7 8 59.16	1	+ 11.291	-.093	56.8	8 49 46.8	2	+ 5.94	- 0.03	55.7
2399 B.A.C.	6.0	...	7 9 55.64	1	+ 2.322	-.037	56.2	120 26 ...	..	+ 6.03	- 0.07	...
47 Camelopard.	6.3	1	7 10 0.19	1	+ 5.294	-.014	56.8	29 50 40.2	2	+ 6.03	+ 0.01	56.4
1119 Gr.	7.2	7	7 10 10.35	8	+ 77.791	-.323	55.7	0 58 39.3	2	+ 6.05	- 0.01	54.2
δ Geminorum.	3.3	...	7 11 45.57	4	+ 3.592	.000	54.6	67 45 48.4	4	+ 6.18	+ 0.02	55.7
2420 B.A.C.	6.0	...	7 13 8.09	1	+ 2.323	-.039	56.2	120 32 38.1	3	+ 6.29	- 0.56	54.1
2443 B.A.C.	6.5	...	7 16 50.17	3	+ 2.273	+ .029	55.5	122 20 ...	..	+ 6.60	+ 0.78	...
ε Geminorum *	4.0	...	7 17 1.75	1	+ 3.745	-.008	56.1	61 55 37.3	2	+ 6.62	+ 0.09	56.2
2453 B.A.C.	6.5	...	7 18 13.04	2	+ 2.339	-.006	55.7	120 10 49.5	3	+ 6.71	- 0.39	54.2
η Can. Maj....	2.7	...	7 18 33.51	3	+ 2.373	-.004	54.2	119 1 56.2	4	+ 6.74	- 0.01	54.1
22 Lynceis.....	5.9	2.5	7 19 17.40	3	+ 4.569	-.007	54.1	40 2 35.2	1	+ 6.80	+ 0.08	56.2
β Can. Min. ...	3.0	...	7 19 33.39	3	+ 3.262	.000	54.1	81 25 53.1	4	+ 6.82	+ 0.05	54.9
ρ Geminorum.	5.0	...	7 20 5.93	3	+ 3.859	+ .007	54.1	57 56 26.6	3	+ 6.87	- 0.19	54.8
2470 B.A.C.	6.5	5	7 21 16.88	5	+ 2.822	+ .021	54.9	101 16 33.7	1	+ 6.96	+ 0.06	56.2
S Can. Min. ...	Var.	3	7 25 7.22	3	+ 3.261	...	56.2	81 23 9.4	2	+ 7.28	...	56.2
Castor (1st) ...	...	...	7 25 39.32	6	+ 3.856	-.013	54.7	57 48 31.3	5	+ 7.32	+ 0.08	54.6
Castor (2d) ...	1.7	...	7 25 39.77	5	+ 3.856	-.013	54.5	57 48 28.8	8	+ 7.32	+ 0.08	54.2
2489 B.A.C.	6.6	4.5	7 26 14.67	3	+ 3.827	+ .001	54.1	58 44 17.7	4	+ 7.37	- 0.01	54.6
ν Geminorum *	4.7	...	7 27 20	..	+ 3.710	-.001	...	62 47 45.4	2	+ 7.46	+ 0.11	56.2
23 Lynceis.....	6.5	1	7 29 13.99	2	+ 5.006	+ .015	56.2	32 36 10.6	2	+ 7.62	+ 0.02	56.2
70 Geminorum	6.0	0.5	7 29 21.32	2	+ 3.949	+ .010	56.2	54 39 ...	..	+ 7.63	+ 0.03	...
71 Geminor. o	5.5	2	7 30 1.33	3	+ 3.934	.000	54.2	55 6 ...	..	+ 7.68	+ 0.30	...
1097 Carrington.	8.4	11	7 30 47.74	14	+ 24.876	...	55.5	3 14 ...	..	+ 7.74	...	...
2517 B.A.C.	6.9	5	7 30 56.62	3	+ 3.853	...	54.2	57 40 22.0	3	+ 7.75	+ 0.04	54.2
Procyon	1.0	...	7 31 58.41	7	+ 3.193	-.048	54.8	84 25 8.9	9	+ 7.83	+ 1.08	54.2
2521 B.A.C.	6.0	...	7 32 56.79	1	+ 10.497	-.225	56.7	9 24 ...	..	+ 7.92	- 0.06	...
σ Geminorum	5.0	...	7 34 33.43	1	+ 3.757	+ .007	54.2	60 46 52.0	2	+ 8.04	+ 0.24	54.2
S Geminorum	Var.	3.5	7 34 38.31	3	+ 3.612	...	56.2	66 13 24.5	1	+ 8.05	...	56.2
1113 Carrington.	7.7	6.5	7 34 58.87	7	+ 16.462	...	54.5	5 13 ...	..	+ 8.08	...	...

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
Pollux	1.3	...	7 36 44.66	5	+ 3.730	-.049	54.8	61 38 19.7	6	+ 8.22	+ 0.06	55.1
1123 Carrington..	7.7	3	7 38 54.60	2	+ 20.833	...	56.1	3 54 43.1	2	+ 8.39	...	54.2
T Geminorum	Var.	4	7 40 53.66	3	+ 3.613	...	55.1	65 55 15.7	1	+ 8.55	...	56.1
2590 B.A.C. ...	5.8	3	7 42 36.13	3	+ 9.806	-.025	54.1	10 8 49.4	3	+ 8.68	+ 0.10	55.9
1359 Gr.	6.7	2	7 42 53.78	2	+ 15.465	...	55.6	5 33 ...	...	+ 8.71	...	...
2599 B.A.C. ...	6.6	3.5	7 43 8.96	2	+ 2.522	...	54.2	114 33 52.2	5	+ 8.73	- 0.28	54.6
6 Puppis	5.5	...	7 43 21.75	3	+ 2.707	+ .009	56.2	106 52 27.4	3	+ 8.74	+ 0.12	54.1
φ Geminor. *	5.0	...	7 44 55.46	4	+ 3.686	-.004	54.7	62 52 29.4	5	+ 8.87	+ 0.05	54.2
9 Puppis	5.0	...	7 45 17.25	2	+ 2.784	-.003	55.7	103 31 44.8	3	+ 8.89	+ 0.33	54.2
2651 B.A.C. ...	7.3	1	7 50 47.82	3	+ 2.391	-.010	54.2	119 54 50.6	3	+ 9.32	+ 0.50	54.2
1153 Carrington..	8.4	11	7 51 57.13	11	+ 15.179	...	55.3	5 34 11.2	2	+ 9.41	...	55.7
2655 B.A.C. ...	6.0	...	7 52 5.44	2	+ 2.391	+ .017	55.7	119 57 37.3	5	+ 9.43	+ 0.11	54.5
2658 B.A.C. ...	7.3	4	7 52 36.77	3	+ 3.469	+ .013	55.2	71 22 26.0	3	+ 9.46	- 0.01	54.2
28 Monocerotis	5.6	4	7 54 6.14	2	+ 3.052	+ .008	56.2	91 0 24.8	4	+ 9.58	+ 0.10	54.7
6 Cancri	5.3	3	7 54 54.98	3	+ 3.700	-.005	54.2	61 48 56.8	3	+ 9.64	+ 0.07	55.5
2673 B.A.C. ...	5.1	7	7 54 58.83	6	+ 3.127	+ .002	54.7	87 17 1.4	4	+ 9.65	- 0.12	54.7
1161 Carrington..	8.9	5	7 56 37.91	4	+ 18.523	...	55.3	4 19 18.8	2	+ 9.77	...	56.2
2703 B.A.C. ...	7.5	7	7 58 18.34	5	+ 3.562	-.012	55.0	67 8 39.4	4	+ 9.90	+ 0.08	54.7
15 Argus	3.0	...	8 1 34.98	5	+ 2.561	-.007	55.5	113 54 10.1	2	+ 10.15	- 0.06	56.2
ψ ² Cancri	6.1	5.5	8 2 0.98	6	+ 3.632	-.002	54.6	64 4 16.0	4	+ 10.18	+ 0.34	54.7
2734 B.A.C. ...	7.2	5	8 2 51.81	3	+ 3.815	-.025	56.2	57 6 23.7	3	+ 10.25	+ 0.67	54.2
18 Puppis	6.1	4	8 4 10.49	3	+ 2.799	-.013	55.5	103 23 23.3	3	+ 10.34	- 0.11	54.2
ζ Cancri (1st)	5.7	2	8 4 10.80	3	+ 3.446	+ .004	54.1	71 55 58.3	5	+ 10.34	+ 0.11	54.9
ζ Cancri (2d).	6.9	5	8 4 11.09	3	+ 3.446	+ .004	54.1	71 56 3.5	3	+ 10.34	+ 0.11	54.2
1190 Carrington..	8.6	7.5	8 6 35.34	6	+ 20.490	...	54.4	3 44 19.6	3	+ 10.52	...	54.9
R Cancri	Var.	6.5	8 8 50.58	5	+ 3.315	...	55.6	77 50 48.0	3	+ 10.69	...	56.2
χ Cancri	5.9	5	8 11 33.36	5	+ 3.660	+ .005	55.0	62 19 54.9	3	+ 10.89	+ 0.37	54.2
2788 B.A.C. ...	6.6	6	8 12 10.85	5	+ 3.506	+ .017	54.9	68 48 47.8	3	+ 10.93	- 0.02	...
31 Lynceus	5.0	...	8 13 14.46	3	+ 4.137	-.002	54.2	46 21 58.3	2	+ 11.02	+ 0.12	55.1
1418 Gr.	7.3	8	8 14 8.63	6	+ 17.340	...	56.1	4 27 48.5	5	+ 11.08	...	55.0
1213 Carrington..	8.7	2	8 16 6.35	4	+ 17.734	...	55.5	4 19 19.1	1	+ 11.22	...	56.2
2810 B.A.C. ...	7.5	5	8 16 47.20	4	+ 3.423	+ .007	54.6	72 21 51.0	3	+ 11.27	+ 0.15	54.2
25 Cancri d ² ..	6.8	4	8 17 54.23	2	+ 3.420	-.015	55.2	72 29 43.4	3	+ 11.35	+ 0.15	54.2
φ ¹ Cancri	6.0	4	8 17 56.49	2	+ 3.666	-.001	56.2	61 38 54.3	5	+ 11.36	+ 0.10	55.0
0 Urs. Maj.	3.3	...	8 18 36.10	1	+ 5.072	-.019	56.7	28 49 6.0	2	+ 11.40	+ 0.13	56.4

Nos. 556-590.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
27 Caneri.....	6.5	2	8 18 59.37	1	+ 3.328	+ .002	56.2	76 53 9.3	1	+ 11.43	+ 0.12	55.1
2827 B.A.C. ...	5.8	3.5	8 19 1.34	4	+ 2.592	+ .019	54.7	113 35 41.0	3	+ 11.43	- 0.06	54.2
v ³ Cancri.....	6.1	7	8 23 13.64	5	+ 3.568	- .003	55.0	65 26 57.7	3	+ 11.73	+ 0.10	54.2
η Caneri	5.8	5	8 24 36.59	3	+ 3.485	- .005	55.2	69 5 7.8	3	+ 11.83	+ 0.06	56.2
1233 Carrington.	7.6	7	8 26 16.39	6	+ 14.019	...	55.7	5 36 9.3	3	+ 11.95	...	54.2
2883 B.A.C. ...	6.0	...	8 27 23.46	3	+ 2.427	- .110	55.9	121 3 16.5	6	+ 12.03	- 0.95	55.2
2898 B.A.C. ...	6.7	1	8 29 32.53	3	+ 2.545	+ .001	55.2	116 21 47.2	4	+ 12.18	+ 0.48	54.7
1259 Carrington.	7.7	7	8 35 13.75	3	+ 18.344	...	54.7	3 54 11.4	5	+ 12.57	...	55.0
S Caneri	Var.	6.5	8 35 56.06	5	+ 3.441	...	54.9	70 27 54.3	2	+ 12.62	...	54.2
δ Caneri	4.0	...	8 36 43.51	3	+ 3.422	- .002	54.2	71 20 0.8	4	+ 12.67	+ 0.24	56.2
1268 Carrington.	8.2	4	8 38 14.22	3	+ 15.442	...	55.7	4 45 46.9	2	+ 12.77	...	54.3
ε Hydræ	3.3	...	8 39 21.55	5	+ 3.196	- .013	54.9	83 4 12.0	11	+ 12.85	+ 0.04	54.7
5 Urs. Maj. ...	5.9	5	8 41 48.48	5	+ 5.025	- .001	55.0	27 31 4.0	2	+ 13.01	- 0.17	56.3
52 Caneri	7.8	5	8 43 20.36	3	+ 3.372	.000	55.2	73 28 52.5	3	+ 13.12	- 0.10	54.2
1278 Carrington.	8.9	4.5	8 43 48.59	5	+ 14.683	...	54.8	4 58 ...	...	+ 13.14	...	...
ρ ¹ Caneri.....	6.4	4	8 44 3.22	2	+ 3.626	- .011	56.2	61 13 4.1	4	+ 13.16	+ 0.02	54.7
ρ ² Caneri.....	6.3	5	8 44 15.18	2	+ 3.627	- .036	56.2	61 8 12.5	3	+ 13.17	+ 0.25	54.2
6 Urs. Maj. ...	5.7	...	8 44 35	...	+ 5.244	+ .003	...	24 51 55.2	1	+ 13.20	+ 0.13	55.7
1285 Carrington.	9.0	3.5	8 45 13.14	4	+ 14.791	...	55.7	4 53 53.9	2	+ 13.24	...	55.7
1286 Carrington.	6.7	6.5	8 45 27.61	5	+ 13.958	...	54.4	5 16 1.5	3	+ 13.25	...	54.2
S Hydræ	Var.	1	8 46 15.68	1	+ 3.135	...	55.2	86 24 ...	...	+ 13.31	...	...
3025 B.A.C. ...	6.0	2	8 47 20.34	2	+ 4.109	- .018	54.2	43 50 11.3	1	+ 13.38	- 0.04	56.8
3031 B.A.C. ...	8.2	5	8 47 53.69	2	+ 3.333	+ .027	56.2	75 17 12.7	3	+ 13.42	+ 0.20	54.2
17 Hyd.(south)	...	...	8 48 38	...	+ 2.943	.000	...	97 26 20.1	2	+ 13.46	+ 0.04	54.2
17 Hyd.(cent.)	7.0	...	8 48 37.96	2	+ 2.943	+ .009	55.2	97 26 18.3	2	+ 13.46	+ 0.06	54.2
17 Hyd.(north)	8.0	2	8 48 38	...	+ 2.943	+ .017	...	97 26 13.4	2	+ 13.46	+ 0.08	54.2
T Caneri	Var.	4	8 48 40.21	3	+ 3.440	...	56.1	69 37 1.8	1	+ 13.46	...	56.1
ι Urs. Maj. ...	3.0	...	8 49 36.40	5	+ 4.191	- .047	55.0	41 25 ...	...	+ 13.52	+ 0.28	...
10 Urs. Maj. ...	4.0	...	8 51 32.35	5	+ 3.964	- .040	55.0	47 39 55.4	6	+ 13.65	+ 0.27	55.2
3078 B.A.C. ...	7.9	4.5	8 54 25.68	3	+ 3.177	+ .019	55.1	83 48 2.8	3	+ 13.83	- 0.03	54.2
3082 B.A.C. ...	6.9	4	8 55 7.14	5	+ 2.598	- .015	54.8	116 6 51.3	3	+ 13.88	- 0.33	54.2
σ ² Urs. Maj. ...	5.0	...	8 58 1.43	3	+ 5.396	- .005	54.2	22 18 4.7	3	+ 14.06	+ 0.11	56.4
3104 B.A.C. ...	7.8	7	8 58 35.25	6	+ 3.342	+ .005	54.7	74 10 4.0	3	+ 14.09	- 0.12	54.2
15 Urs. Maj. f	5.0	...	8 58 58.61	2	+ 4.295	- .012	55.2	37 50 0.1	3	+ 14.12	+ 0.05	54.3
75 Caneri.....	6.4	6	9 0 32.83	5	+ 3.557	- .009	55.0	62 47 37.7	3	+ 14.22	+ 0.39	54.2

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
ξ Cancri.....*	5.0	...	9 1 18.25	3	+ 3.463	-.002	54.2	67 23 26.2	4	+ 14.27	- 0.01	54.7
1330 Carrington.	8.3	11.5	9 2 50.50	12	+ 24.166	...	55.4	2 32 5.0	3	+ 14.36	...	55.7
3127 B.A.C. ...	8.1	2.5	9 3 37.13	4	+ 2.632	+ .018	54.7	115 14 11.0	3	+ 14.41	+ 0.11	54.2
π ¹ Cancri	6.8	5	9 4 37.68	3	+ 3.300	-.033	55.2	74 26 31.1	3	+ 14.46	- 0.28	54.2
3144 B.A.C. ...	6.1	4	9 6 38.02	3	+ 3.720	-.015	55.1	54 47 30.7	3	+ 14.59	+ 0.03	54.2
θ Hydræ.....	4.0	...	9 7 4.70	5	+ 3.118	+ .013	55.0	87 5 48.2	5	+ 14.61	+ 0.32	55.0
20 Urs. Maj...	7.3	5	9 9 44.63	4	+ 4.662	+ .015	55.5	29 37 56.3	1	+ 14.75	+ 0.14	56.2
3169 B.A.C. ...	6.5	6	9 10 59.52	5	+ 4.216	+ .001	55.0	38 9 6.7	3	+ 14.84	- 0.10	55.1
83 Cancri.....	6.9	5	9 11 9.79	3	+ 3.368	-.012	54.2	71 42 11.7	3	+ 14.85	+ 0.16	54.2
1361 Carrington.	8.3	2	9 11 55.73	2	+ 25.734	...	56.3	2 15 42.0	2	+ 14.90	...	55.7
α Lyneis	3.3	...	9 12 31.07	5	+ 3.696	-.016	54.8	55 1 3.1	5	+ 14.94	+ 0.02	55.0
3183 B.A.C. ...	7.4	6	9 13 1.65	5	+ 3.501	-.025	55.5	64 14 23.3	3	+ 14.96	...	54.2
1379 Carrington.	8.6	3	9 16 10	..	+ 12.102	...	...	5 32 38.9	3	+ 15.15	...	54.3
3199 B.A.C. ...	4.3	...	9 16 48.55	3	+ 9.241	-.063	56.2	8 3 38.2	3	+ 15.18	+ 0.04	56.3
3206 B.A.C. ...	7.0	9	9 16 52.36	7	+ 3.396	-.008	54.9	69 36 36.2	3	+ 15.18	+ 0.20	54.2
41 Lyneis.....	6.0	3	9 19 28.46	3	+ 3.971	-.001	54.2	43 47 15.9	2	+ 15.34	+ 0.14	54.3
23 Urs. Maj. h	3.3	...	9 20 27.12	2	+ 4.805	+ .011	56.2	26 19 44.4	2	+ 15.39	- 0.11	56.5
α Hydræ	2.0	...	9 20 42.52	5	+ 2.951	-.004	55.0	98 3 14.9	7	+ 15.40	- 0.03	54.2
22 Urs. Maj...	6.0	...	9 21 35	..	+ 4.829	+ .012	...	17 10 35.9	1	+ 15.45	+ 0.10	56.2
7 Leo. Min....	6.0	2	9 22 15	..	+ 3.650	+ .007	...	55 43 52.4	3	+ 15.49	+ 0.11	54.3
1393 Carrington.	7.6	4	9 23 12.57	4	+ 11.715	...	55.7	5 35 ...	..	+ 15.54	...	...
θ Urs. Maj....	3.0	...	9 23 28.38	3	+ 4.164	-.111	54.2	37 42 11.6	1	+ 15.56	+ 0.57	55.7
λ Leonis.....*	4.7	...	9 23 43.80	2	+ 3.439	-.004	54.7	66 25 1.9	2	+ 15.57	+ 0.04	55.3
1399 Carrington.	9.2	5	9 23 59.38	4	+ 11.613	...	55.7	5 37 38.0	1	+ 15.58	...	56.2
3245 B.A.C. ...	7.5	1	9 24 5	..	+ 3.573	-.019	...	17 17 47.3	1	+ 15.59	+ 0.12	56.2
1402 Carrington.	8.6	4	9 24 45.16	4	+ 11.541	...	55.6	5 39 ...	..	+ 15.63	...	...
1398 Carrington.	9.3	2	9 25 5.66	1	+ 24.821	...	56.3	2 12 8.6	1	+ 15.65	...	56.3
1407 Carrington.	7.8	6	9 25 27.63	5	+ 10.966	...	54.7	6 2 14.7	2	+ 15.67	...	54.2
1408 Carrington.	8.2	6	9 26 8.38	5	+ 11.182	...	54.7	5 51 17.8	2	+ 15.70	...	56.3
11 Leo. Min. .	5.9	7	9 27 15.19	5	+ 3.683	-.056	56.0	53 33 30.1	3	+ 15.76	+ 0.26	54.2
33 Hydræ	6.2	5	9 27 33.57	4	+ 2.996	+ .002	55.2	95 17 32.0	6	+ 15.78	+ 0.15	55.3
12 Leonis.....	7.4	6	9 31 9.64	6	+ 3.466	+ .014	54.7	64 0 13.4	4	+ 15.97	- 0.04	54.8
1418 Carrington.	7.8	9	9 31 33.77	6	+ 19.795	...	56.0	2 45 42.6	4	+ 15.99	...	54.8
ε Hydræ	4.3	...	9 32 42.36	5	+ 3.065	+ .008	55.1	90 30 33.6	6	+ 16.05	+ 0.11	55.3
15 Leonis f...	6.2	5	9 35 20.46	3	+ 3.539	+ .001	56.2	59 23 1.9	3	+ 16.19	+ 0.11	54.2

Nos. 626-660.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
ψ Leonis.....*	5.8	7	9 36 6.37	5	+ 3.277	-.002	54.3	75 20 23.0	5	+ 16.23	+ 0.02	55.5
14 Leo. Min...	6.8	7	9 37 44.16	3	+ 3.871	+ .003	54.2	44 14 15.8	5	+ 16.31	+ 0.14	55.1
ϵ Leonis	3.0	...	9 37 54.03	5	+ 3.424	-.004	54.8	65 34 57.8	5	+ 16.32	+ 0.02	55.0
15 Leo. Min...	5.9	6	9 39 32.61	5	+ 3.888	+ .027	55.0	43 19 44.6	2	+ 16.40	+ 0.10	54.3
R Leonis	Var.	6	9 40 1.60	3	+ 3.236	+ .002	54.3	77 55 26.6	4	+ 16.43	+ 0.17	54.2
ν Urs. Maj. ...	3.7	...	9 41 0.46	3	+ 4.376	-.033	54.9	30 18 ...	..	+ 16.48	+ 0.18	...
23 Leonis.....	6.8	7.5	9 43 27.34	5	+ 3.255	+ .018	55.0	76 16 53.1	3	+ 16.60	+ 0.05	54.2
22 Leonis <i>g</i> ...	5.0	...	9 43 55.95	3	+ 3.421	+ .006	54.3	64 56 37.5	4	+ 16.62	+ 0.20	56.3
μ Leonis	4.0	...	9 44 47.74	5	+ 3.445	-.021	55.0	63 20 7.6	7	+ 16.67	+ 0.06	54.3
7 Sextantis ...	6.9	4	9 44 58.93	2	+ 3.111	-.009	55.3	86 53 39.8	2	+ 16.68	- 0.11	54.3
1451 Carrington.	6.6	6	9 45 35.11	7	+ 10.883	...	54.7	5 24 41.6	4	+ 16.71	...	56.4
1458 Carrington.	8.3	5.5	9 48 42.54	5	+ 14.955	...	56.5	3 29 24.4	3	+ 16.86	...	56.3
1460 Carrington.	8.2	3.5	9 49 43.68	4	+ 23.340	...	56.7	2 2 1.3	1	+ 16.90	...	56.2
π Leonis.....	5.0	...	9 52 48.88	4	+ 3.180	-.003	55.3	81 17 8.2	3	+ 17.05	+ 0.03	56.2
20 Leo. Min...	5.0	...	9 52 55.94	5	+ 3.523	-.039	55.0	57 23 21.4	3	+ 17.05	+ 0.46	54.2
13 Sextantis ..	7.2	8	9 56 53.22	5	+ 3.118	-.005	55.0	86 7 9.5	3	+ 17.23	+ 0.11	54.3
3452 B.A.C. ...	7.3	0.5	9 59 29.67	4	+ 2.681	.000	55.2	120 13 ...	..	+ 17.35	+ 0.31	...
η Leonis*	3.3	...	9 59 41.82	3	+ 3.283	-.004	54.2	72 33 22.3	2	+ 17.36	0.00	56.3
Regulus	1.5	...	10 0 54.83	5	+ 3.221	-.019	55.0	77 20 59.1	10	+ 17.41	- 0.01	54.4
λ Hydræ	4.0	...	10 3 45.89	5	+ 2.938	-.010	55.1	101 39 49.2	3	+ 17.53	+ 0.09	56.2
34 Leonis.....	6.4	4.5	10 4 6.37	5	+ 3.234	+ .008	55.0	75 57 19.7	2	+ 17.55	+ 0.11	56.3
3476 B.A.C. ...	7.1	6.5	10 4 18.33	5	+ 2.997	+ .011	55.0	96 37 42.0	2	+ 17.55	0.00	54.3
20 Sextantis ..	7.6	7.5	10 6 46.66	5	+ 2.998	-.011	55.0	96 41 34.6	3	+ 17.66	- 0.03	54.3
3489 B.A.C. ...	6.6	3	10 6 53.27	5	+ 2.759	-.012	55.1	116 20 16.9	1	+ 17.66	- 0.43	56.3
23 Leo. Min...	5.0	...	10 8 16.84	2	+ 3.434	-.002	56.2	59 59 37.2	2	+ 17.72	+ 0.11	54.3
24 Leo. Min. ...	7.0	...	10 8 30	..	+ 3.424	+ .003	...	60 37 7.0	1	+ 17.73	+ 0.14	56.3
λ Urs. Maj.	3.3	...	10 8 38.56	3	+ 3.667	-.015	54.3	46 23 ...	..	+ 17.74	+ 0.06	...
1620 Gr.	5.9	3	10 8 40	..	+ 10.148	-.079	...	5 2 27.7	10	+ 17.74	+ 0.05	54.3
39 Leonis.....	6.0	1	10 9 32.37	1	+ 3.345	-.029	56.2	66 11 ...	..	+ 17.77	+ 0.10	...
1519 Carrington.	8.6	5.5	10 9 42.93	8	+ 14.037	...	55.3	3 13 51.3	1	+ 17.78	...	54.2
3515 B.A.C. ...	6.5	4	10 10 19.85	3	+ 3.682	+ .009	54.3	45 14 29.7	2	+ 17.80	+ 0.42	56.3
40 Leonis.....	6.0	...	10 12 6.72	2	+ 3.295	-.019	56.3	69 49 ...	..	+ 17.87	+ 0.20	...
γ Leonis (1st)	2.0	...	10 12 15.00	7	+ 3.299	+ .019	54.8	69 27 6.4	1	+ 17.88	+ 0.15	54.2
γ Leonis (2d)	3.5	...	10 12 15.46	5	+ 3.299	+ .019	55.2	69 27 7.6	2	+ 17.88	+ 0.15	54.3
1533 Carrington.	8.4	6	10 12 29.88	7	+ 11.595	...	55.5	4 3 22.8	1	+ 17.89	...	55.7

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		" " "		"	"	
3528 B.A.C. ...	5.0	...	10 13 35	..	+ 8.143	-.106	...	6 43 56.2	3	+ 17.93	+ 0.07	56.0
μ Urs. Maj....	3.0	...	10 13 58.65	3	+ 3.613	-.008	54.2	47 47 51.8	2	+ 17.95	- 0.03	56.2
1540 Carrington.	7.7	1	10 14 16.43	1	+ 10.030	...	56.8	4 52 ...	..	+ 17.96	...	...
30 Leo. Min...	4.7	...	10 17 52.92	3	+ 3.468	.000	55.3	55 29 31.1	5	+ 18.10	+ 0.10	55.4
3563 B.A.C. ...	6.3	5	10 18 44.59	3	+ 3.008	-.002	54.3	96 21 18.9	2	+ 18.13	- 0.11	54.3
3566 B.A.C. ...	7.3	5	10 19 16.40	3	+ 3.015	-.011	56.3	95 42 59.9	2	+ 18.15	- 0.09	56.3
μ Hydræ	4.0	...	10 19 19.37	3	+ 2.907	-.006	54.2	106 7 23.5	2	+ 18.15	+ 0.12	54.3
β Leo. Min...	4.3	...	10 19 46.73	2	+ 3.505	-.011	56.3	52 34 35.8	1	+ 18.17	+ 0.11	54.2
45 Leonis ... *	6.0	...	10 20 15	..	+ 3.176	-.002	...	79 31 32.1	1	+ 18.19	+ 0.01	56.2
3576 B.A.C. ...	7.8	4	10 20 26.27	2	+ 3.070	+ .009	56.3	90 15 5.3	2	+ 18.19	+ 0.28	54.3
36 Urs. Maj...	5.0	...	10 21 40	..	+ 3.918	-.013	...	33 18 11.4	4	+ 18.24	- 0.01	56.1
1566 Carrington.	8.0	4	10 24 46.31	4	+ 9.885	...	54.4	4 31 45.7	2	+ 18.35	...	56.0
ρ Leonis	4.0	...	10 25 26.30	3	+ 3.166	.000	55.3	79 58 26.2	1	+ 18.37	+ 0.05	56.3
37 Urs. Maj...	5.0	...	10 26 7.19	5	+ 3.918	+ .012	55.0	32 11 52.2	3	+ 18.40	+ 0.03	54.3
3627 B.A.C. ...	6.9	1.5	10 28 18.07	2	+ 2.857	-.027	54.3	112 27 16.1	3	+ 18.47	- 0.35	54.2
3628 B.A.C. ...	8.1	5	10 28 45.98	2	+ 3.142	+ .018	55.3	82 14 11.7	3	+ 18.49	+ 0.21	54.3
3629 B.A.C. ...	6.5	2	10 29 27.33	2	+ 6.579	+ .042	56.3	8 51 ...	..	+ 18.51	+ 0.02	...
38 Leo. Min...	6.1	5.5	10 31 6.67	3	+ 3.476	-.021	54.2	51 21 41.2	3	+ 18.57	+ 0.03	54.3
33 Sextantis..	6.7	3	10 34 16.94	2	+ 3.063	-.005	55.3	91 0 24.9	3	+ 18.67	+ 0.14	54.9
R Urs. Maj....	Var.	6	10 34 41.06	3	+ 4.373	...	54.2	20 29 29.7	5	+ 18.68	...	54.9
3665 B.A.C. ...	5.0	...	10 35 18.38	2	+ 3.589	-.025	54.3	43 4 ...	..	+ 18.70	- 0.03	...
3670 B.A.C. ...	7.7	3	10 35 46.60	3	+ 3.586	-.025	54.2	43 3 ...	..	+ 18.72	- 0.01	...
3674 B.A.C. ...	7.3	1	10 36 9.75	1	+ 2.871	+ .008	55.3	112 49 2.0	3	+ 18.73	+ 0.13	54.2
52 Leonis <i>k</i> ... *	5.9	6	10 39 0.29	3	+ 3.195	-.011	56.2	75 4 1.6	5	+ 18.82	+ 0.08	55.1
1605 Carrington.	8.6	9	10 41 22.55	7	+ 8.320	...	54.7	4 53 56.0	4	+ 18.89	...	56.3
53 Leonis <i>l</i> ...	6.0	1	10 41 53.89	3	+ 3.161	-.003	55.2	78 43 ...	..	+ 18.90	+ 0.02	...
ν Hydræ	3.3	...	10 42 43.07	5	+ 2.950	+ .006	55.0	105 27 43.6	3	+ 18.92	- 0.17	54.2
46 Leo. Min...	4.0	...	10 45 28.53	3	+ 3.370	+ .007	54.3	55 1 52.0	5	+ 19.00	+ 0.24	55.1
δ^3 Hydræ	6.1	2.5	10 46 38.82	5	+ 2.924	+ .007	55.0	109 23 9.9	3	+ 19.04	+ 0.10	54.2
47 Leo. Min...	6.4	7	10 47 10.79	5	+ 3.362	.000	55.3	55 13 8.1	3	+ 19.05	+ 0.13	54.3
5741 B.A.C. ...	5.4	4	10 47 58.87	1	+ 3.354	-.007	55.3	55 44 47.6	3	+ 19.07	+ 0.10	54.3
55 Leonis	6.4	3	10 48 30.39	2	+ 3.083	+ .011	56.3	88 31 4.5	1	+ 19.09	0.00	54.3
1633 Carrington.	8.5	10	10 51 9.49	7	+ 9.181	...	55.4	3 42 11.1	6	+ 19.16	...	56.2
47 Urs. Maj...	5.0	...	10 51 36.94	10	+ 3.416	-.028	55.4	48 49 21.7	2	+ 19.17	- 0.06	54.3
α Crateris	4.0	...	10 52 57.42	1	+ 2.949	-.029	56.3	107 33 14.8	1	+ 19.20	- 0.14	56.3

Nos. 696-730.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
β Urs. Maj....	2.3	...	10 53 22.19	2	+ 3.665	+ .010	55.3	32 52 4.8	2	+ 19.21	- 0.03	54.2
3773 B.A.C....	7.9	6	10 53 53.69	3	+ 3.077	+ .023	54.3	89 12 9.0	3	+ 19.23	+ 0.05	54.3
1639 Carring..	7.6	4	10 54 21.88	5	+ 16.585	...	56.3	1 36 ...	...	+ 19.24	...	...
α Urs. Maj....	2.0	...	10 55 3.59	5	+ 3.790	- .017	56.2	27 29 38.7	12	+ 19.26	+ 0.09	54.9
3778 B.A.C....	7.0	0.5	10 55 38.15	3	+ 2.890	+ .007	55.3	116 4 29.5	3	+ 19.27	+ 0.10	54.3
3779 B.A.C....	6.9	7	10 56 4.85	5	+ 3.072	+ .001	55.1	89 59 46.1	2	+ 19.28	+ 0.30	54.3
1645 Carring..	7.2	9	10 56 55.14	9	+ 8.844	...	55.0	3 36 8.8	1	+ 19.30	...	56.8
51 Leo. Min. .	7.7	8	10 57 46.93	5	+ 3.246	- .028	55.7	64 2 28.2	3	+ 19.32	+ 0.03	54.3
χ Leonis	5.0	...	10 57 47.69	8	+ 3.122	- .024	55.2	81 54 29.3	5	+ 19.32	+ 0.08	55.5
65 Leonis p^3 ..	6.0	7	10 59 45.75	5	+ 3.089	- .028	54.7	87 17 5.5	3	+ 19.37	+ 0.08	54.3
β Crateris	4.0	...	11 4 46.72	6	+ 2.943	+ .006	55.3	112 3 42.9	4	+ 19.48	+ 0.10	54.7
3831 B.A.C....	7.2	10	11 6 19.60	6	+ 3.191	- .025	54.8	69 6 16.9	5	+ 19.51	+ 0.11	55.1
δ Leonis.....	2.3	...	11 6 39.52	5	+ 3.192	+ .011	55.0	68 42 34.0	2	+ 19.51	+ 0.14	54.2
75 Leonis.....	5.9	2	11 10 5.14	3	+ 3.086	+ .005	56.2	87 13 ...	...	+ 19.58	+ 0.19	...
ξ Urs. Maj. (1st)	4.0	...	11 10 42.43	3	+ 3.252	- .030	56.3	57 41 1.0	3	+ 19.59	+ 0.57	56.3
ξ Urs. Maj. (2d)	4.9	...	11 10 42.79	2	+ 3.252	- .030	56.3	57 41 ...	...	+ 19.59	+ 0.57	...
3855 B.A.C....	7.4	2.5	11 11 7.47	3	+ 3.050	+ .053	55.3	94 18 ...	...	+ 19.60	+ 0.13	...
δ Hyd. & Crat.	3.3	...	11 12 20.65	5	+ 3.002	- .009	54.3	104 1 17.6	3	+ 19.62	- 0.18	54.3
3861 B.A.C....	7.3	3	11 13 46.25	3	+ 3.099	+ .010	55.3	84 21 8.1	1	+ 19.65	+ 0.06	56.2
σ Leonis	4.0	...	11 13 55.02	4	+ 3.104	- .009	55.6	83 12 13.1	1	+ 19.65	+ 0.03	56.3
3863 B.A.C....	7.3	7	11 14 15.13	4	+ 3.107	- .019	56.0	82 35 55.2	3	+ 19.66	+ 0.02	54.3
λ Crateris	6.2	5	11 16 25.80	5	+ 2.990	- .018	55.1	108 0 39.0	2	+ 19.70	+ 0.02	55.3
ϵ Leonis	4.0	...	11 16 37.54	7	+ 3.122	+ .007	54.7	78 42 0.6	3	+ 19.70	+ 0.07	54.3
80 Leonis.....	7.0	1	11 18 38.43	2	+ 3.092	- .004	56.3	85 22 ...	...	+ 19.73	+ 0.11	...
83 Leonis (1st)	7.2	3	11 19 40.27	2	+ 3.088	- .057	54.3	86 13 29.0	3	+ 19.75	- 0.17	54.3
83 Leonis (2d)	8.1	4	11 19 41.19	4	+ 3.088	- .057	55.0	86 13 ...	...	+ 19.75	- 0.17	...
1700 Carring..	6.9	5	11 20 32.79	5	+ 5.968	...	55.2	4 31 ...	...	+ 19.76	...	...
τ Leonis.....	5.0	...	11 20 44.23	3	+ 3.087	- .001	55.2	86 22 23.6	3	+ 19.76	+ 0.02	56.3
58 Urs. Maj....	6.4	5	11 22 56.05	3	+ 3.279	+ .011	54.3	46 3 30.6	2	+ 19.80	- 0.04	54.3
5917 B.A.C....	7.9	6	11 24 11.50	3	+ 3.086	+ .019	55.3	86 9 57.7	3	+ 19.81	+ 0.11	54.3
1711 Carring..	7.3	6	11 24 16.85	6	+ 6.355	...	54.9	3 37 ...	...	+ 19.81	...	...
88 Leonis (2d)	6.7	4.5	11 24 31.25	2	+ 3.127	- .018	56.3	74 51 22.4	4	+ 19.82	+ 0.20	54.8
3920 B.A.C....	6.9	3	11 24 49.49	2	+ 3.051	- .017	56.3	95 41 42.7	3	+ 19.82	+ 0.14	54.3
3921 B.A.C....	6.5	...	11 25 20.39	3	+ 2.963	- .005	55.2	118 30 ...	...	+ 19.83	- 0.11	...
3922 B.A.C....	5.0	...	11 25 20.39	2	+ 2.963	- .005	56.3	118 30 ...	...	+ 19.83	- 0.11	...

Star.	Magnitudes.	Estimates of Magnitudes.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
89 Leonis.....	6.2	8	11 27 12.09	3	+ 3.085	-.008	55.7	86 9 45.5	3	+ 19.85	+ 0.13	54.3
2 Draconis	6.0	...	11 27 50	..	+ 3.589	+ .023	...	19 53 53.1	1	+ 19.86	+ 0.12	55.8
v Leonis	4.7	...	11 29 46.99	3	+ 3.072	-.003	54.3	90 3 4.7	2	+ 19.88	- 0.03	54.3
59 Urs. Maj...	6.2	3	11 30 52.34	3	+ 3.238	-.017	54.3	45 35 54.8	4	+ 19.89	+ 0.06	56.1
t Crateris	5.9	2	11 31 33.70	5	+ 3.036	+ .009	55.7	102 25 54.6	3	+ 19.90	- 0.10	54.3
61 Urs. Maj...	5.0	...	11 33 40.33	3	+ 3.179	+ .004	56.3	55 0 26.7	4	+ 19.92	+ 0.46	55.3
62 Urs. Maj...	5.7	1	11 34 16.72	3	+ 3.167	-.024	56.3	57 29 ...	..	+ 19.93	- 0.03	...
3969 B.A.C.....	6.0	...	11 34 44.98	1	+ 2.981	+ .011	56.2	121 43 ...	..	+ 19.93	- 0.01	...
1818 Gr.	9.3	6	11 35 5.37	6	+ 4.502	...	55.4	5 48 ...	..	+ 19.94	...	...
1745 Carrington..	9.3	7	11 35 5.52	6	+ 5.215	...	54.9	3 52 16.7	1	+ 19.94	...	55.3
1749 Carrington..	8.3	3	11 36 51.18	3	+ 5.162	...	54.3	3 41 ...	..	+ 19.95	...	...
ξ Virginis.....	4.7	...	11 38 4.06	5	+ 3.093	+ .005	55.1	80 57 48.9	5	+ 19.96	+ 0.04	55.5
v Virginis.....	4.3	...	11 38 39.85	6	+ 3.088	+ .001	55.3	82 41 10.5	5	+ 19.97	+ 0.21	54.9
3992 B.A.C.....	6.5	3.5	11 41 26.50	3	+ 3.101	-.009	56.3	74 56 20.5	2	+ 19.99	+ 0.16	55.3
β Leonis	2.0	...	11 41 55.11	5	+ 3.101	-.036	54.9	74 39 ...	..	+ 19.99	+ 0.10	...
.....	10.3	8	11 42 34.03	5	+ 3.153	...	55.1	51 18 51.5	4	+ 20.00	...	55.3
β Virginis	3.3	...	11 43 24.29	8	+ 3.076	+ .048	54.9	87 26 47.5	3	+ 20.00	+ 0.28	55.0
1830 Gr.	6.7	11	11 44 53.95	5	+ 3.143	+ .344	55.1	51 16 37.6	10	+ 20.01	+ 5.70	55.3
γ Urs. Maj....	2.3	...	11 46 27.25	4	+ 3.183	+ .011	56.1	35 31 36.6	2	+ 20.02	0.00	55.5
4020 B.A.C.....	7.4	2.5	11 46 42.87	3	+ 3.068	+ .018	55.3	93 0 ...	..	+ 20.02	+ 0.06	...
.....	9.4	6	11 46 49.58	5	+ 3.134	...	55.1	51 16 0.9	1	+ 20.02	...	54.3
4021 B.A.C.....	7.0	...	11 46 53.81	1	+ 3.080	+ .017	56.3	84 21 ...	..	+ 20.02	+ 0.08	...
.....	9.6	6	11 47 8.52	5	+ 3.132	...	55.1	51 10 56.0	3	+ 20.02	...	56.4
1777 Carrington..	10.1	9	11 51 38.63	9	+ 4.325	...	55.6	2 13 33.2	3	+ 20.04	...	55.0
4043 B.A.C.....	6.8	7.5	11 51 53.68	5	+ 3.073	-.017	55.8	88 41 28.5	3	+ 20.04	- 0.06	54.3
1778 Carrington..	8.0	7	11 51 59.12	7	+ 4.275	...	55.4	2 13 35.2	2	+ 20.04	...	55.8
γ Virginis b *	6.0	1	11 52 46.89	1	+ 3.075	-.002	56.3	85 33 52.7	1	+ 20.05	+ 0.02	54.3
4055 B.A.C.....	7.9	3	11 54 0.41	1	+ 3.075	+ .015	56.3	85 35 14.7	3	+ 20.05	+ 0.22	54.4
67 Urs. Maj...	5.7	1	11 54 59.83	1	+ 3.100	-.032	56.3	46 10 39.1	3	+ 20.05	- 0.05	56.5
4059 B.A.C.....	6.6	2	11 55 22.45	1	+ 3.097	-.017	55.3	46 6 59.7	1	+ 20.05	+ 0.58	56.3
1848 Gr.	9.2	2	11 56 7.46	3	+ 3.294	...	55.9	5 50 19.8	1	+ 20.05	...	55.9
4064 B.A.C.....	6.7	2.5	11 56 35.74	2	+ 3.074	-.019	56.3	83 39 35.2	3	+ 20.05	+ 0.09	54.4
1850 Gr.	6.6	3	11 57 38.71	3	+ 3.288	...	56.9	3 40 ...	..	+ 20.06	...	...
o Virginis	4.0	...	11 58 4.78	3	+ 3.074	-.013	55.3	80 29 19.1	1	+ 20.06	- 0.02	55.3
4080 B.A.C.....	7.6	4	12 0 4.79	2	+ 3.071	+ .019	56.3	95 59 14.7	3	+ 20.06	+ 0.08	54.3

Nos. 766—800.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
α Corvi.....	4.0	...	12 1 11.88	2	+ 3.074	+ .010	56.3	113 56 52.0	3	+ 20.06	+ 0.04	56.0
10 Virginis....	6.0	1	12 2 30	..	+ 3.071	+ .004	...	87 18 56.9	1	+ 20.05	+ 0.23	56.4
ϵ Corvi.....	3.0	...	12 2 55.91	1	+ 3.079	+ .001	56.3	111 50 25.5	3	+ 20.05	- 0.02	54.4
1816 Carrang..	7.7	6	12 6 50.12	7	+ 2.075	...	55.3	2 17 ...	..	+ 20.05	...	...
1860 Gr.	8.1	2.5	12 7 0.78	4	+ 2.661	...	54.7	5 43 ...	..	+ 20.05	...	...
4119 B.A.C.....	7.0	...	12 7 5.16	1	+ 3.075	- .018	56.3	94 57 ...	..	+ 20.05	- 0.07	...
δ Urs. Maj....	4.5	...	12 8 29.07	1	+ 2.994	+ .015	56.3	32 12 ...	..	+ 20.04	+ 0.04	...
γ Corvi.....	2.0	...	12 8 36.67	3	+ 3.087	- .008	55.3	106 45 52.4	3	+ 20.04	- 0.02	54.6
η Virginis.....	3.3	...	12 12 44.69	3	+ 3.072	- .007	54.3	89 53 17.5	2	+ 20.02	+ 0.03	54.2
10 Comæ.....	6.7	1.5	12 12 48.09	2	+ 3.030	+ .013	56.3	60 45 ...	..	+ 20.02	+ 0.08	...
16 Virginis c .	5.0	...	12 13 14.46	6	+ 3.066	- .019	54.9	85 54 27.7	3	+ 20.02	+ 0.08	54.4
1884 Gr.	6.7	1	12 14 25	..	- 0.072	- .152	...	1 31 27.9	2	+ 20.02	- 0.07	56.3
1879 Gr.	7.6	5	12 15 4.47	5	+ 2.215	...	54.5	5 51 ...	..	+ 20.01	...	...
17 Virginis....	6.0	...	12 15 25	..	+ 3.062	- .010	...	83 54 56.1	3	+ 20.01	+ 0.07	56.3
1889 Gr.	8.6	3	12 18 10.86	4	+ 1.985	...	55.9	5 34 13.3	3	+ 19.99	...	56.5
4184 B.A.C.....	6.0	0.5	12 18 12.37	1	+ 3.023	+ .017	56.4	65 18 ...	..	+ 19.99	+ 0.14	...
1892 Gr.	8.3	1	12 19 27.93	3	+ 1.955	...	55.9	5 48 ...	..	+ 19.98	...	...
72 Urs. Maj....	7.1	...	12 19 50.00	1	+ 2.901	+ .020	55.0	34 4 ...	..	+ 19.98	+ 0.02	...
γ Comæ.....	4.3	...	12 19 57.49	2	+ 3.008	- .004	56.3	60 57 9.3	3	+ 19.98	+ 0.11	54.4
δ Corvi.....	2.3	...	12 22 37.52	3	+ 3.107	- .001	56.3	105 44 9.5	3	+ 19.96	+ 0.16	54.3
20 Comæ.....	6.0	...	12 22 41.22	1	+ 3.019	+ .016	56.4	68 20 ...	..	+ 19.96	0.00	...
4213 B.A.C.....	6.5	...	12 22 50	..	+ 3.100	- .023	...	102 37 1.1	1	+ 19.96	+ 0.05	56.3
4 Draconis....	5.0	...	12 24 0	..	+ 2.689	+ .001	...	20 1 23.3	6	+ 19.95	+ 0.12	54.4
4225 B.A.C.....	6.5	...	12 24 30	..	+ 3.082	- .012	...	94 16 48.7	1	+ 19.94	- 0.02	55.3
β Corvi.....	2.5	...	12 27 2.28	1	+ 3.138	- .008	56.3	112 37 ...	..	+ 19.92	+ 0.07	...
β Can. Ven. ...	4.3	...	12 27 5.32	5	+ 2.929	- .069	55.1	47 52 53.3	2	+ 19.92	- 0.30	54.4
4250 B.A.C.....	7.4	1.5	12 30 0	..	+ 3.043	- .011	...	80 25 57.2	3	+ 19.88	+ 0.10	54.3
R Virginis.....	Var.	4	12 31 23.85	3	+ 3.047	...	55.3	82 14 23.4	1	+ 19.87	...	55.3
γ Virg. (north)	3.0	...	12 34 34.13	3	+ 3.074	- .037	54.3	90 40 50.1	2	+ 19.83	+ 0.05	54.4
γ Virg. (south)	3.0	...	12 34 34.24	3	+ 3.074	- .037	54.3	90 40 55.1	2	+ 19.83	+ 0.05	55.4
1923 Gr.	7.0	4	12 37 17.95	3	+ 0.858	...	55.5	5 35 16.0	1	+ 19.79	...	56.3
S Urs. Maj....	Var.	5	12 37 48.37	3	+ 2.662	...	54.3	28 8 22.7	3	+ 19.78	...	54.3
10 Can. Ven. .	6.1	3	12 38 21.70	5	+ 2.884	- .033	55.7	49 57 35.6	1	+ 19.78	- 0.16	56.3
33 Virginis ...	6.2	5	12 39 15.70	3	+ 3.030	+ .022	56.4	79 40 36.3	3	+ 19.76	+ 0.50	54.4
7 Draconis....	6.5	1	12 41 51	..	+ 2.484	+ .041	...	22 26 40.3	1	+ 19.72	- 0.01	56.8

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
11 Can. Ven. .	6.5	4	12 42 14.91	5	+ 2.788	+ .017	55.2	40 46 10.3	1	+ 19.72	+ 0.05	55.3
4306 B.A.C.	7.6	3	12 42 52.54	1	+ 3.102	-.017	55.3	96 52 8.8	3	+ 19.71	+ 0.04	55.4
33 Comæ.....	7.4	3	12 45 24.98	1	+ 2.987	+ .011	56.4	72 7 42.2	2	+ 19.66	+ 0.06	54.3
38 Virginis ...	6.6	3	12 46 1.20	3	+ 3.085	-.016	54.4	92 47 29.3	2	+ 19.65	+ 0.03	56.3
ε Urs. Maj. ...	2.0	...	12 47 51.76	1	+ 2.649	+ .013	56.4	33 16 48.5	5	+ 19.62	+ 0.05	54.9
1937 Gr.	6.3	10	12 48 2.14	8	+ 0.344	-.006	56.5	5 49 15.8	6	+ 19.62	- 0.02	54.4
1940 Gr.	4.7	...	12 48 9.34	3	+ 0.339	-.017	56.3	5 49 33.1	2	+ 19.61	- 0.04	56.4
δ Virginis	3.0	...	12 48 33.23	1	+ 3.051	-.030	55.4	85 50 24.0	1	+ 19.61	+ 0.09	54.3
12 Can. Ven. (1)	6.7	3	12 49 27.27	3	+ 2.840	-.023	54.4	50 56 ...	...	+ 19.59	- 0.06	...
12 Can. Ven. (2)	3.0	...	12 49 28.59	4	+ 2.840	-.023	54.3	50 56 ...	...	+ 19.59	- 0.06	...
4348 B.A.C. (1)	8.3	3	12 50 8.74	3	+ 2.659	-.015	54.3	35 9 ...	...	+ 19.58	+ 0.02	...
1926 Carrington.	10.2	2	12 53 30	...	- 0.157	...	...	5 28 27.9	2	+ 19.51	...	56.4
4363 B.A.C.	7.8	4	12 54 21.93	2	+ 3.060	+ .020	55.9	87 43 29.8	3	+ 19.49	+ 0.06	54.4
9 Draconis ...	5.8	4.5	12 54 37.30	3	+ 2.315	-.018	54.4	22 38 48.6	4	+ 19.49	+ 0.02	55.2
ε Virginis.....	2.7	...	12 55 12.54	2	+ 3.006	-.012	56.4	78 17 15.1	4	+ 19.48	- 0.03	54.9
49 Virginis g *	5.4	3	13 0 34.08	2	+ 3.133	+ .001	55.3	99 59 27.3	3	+ 19.36	+ 0.02	56.0
4393 B.A.C.	6.7	6.5	13 1 11.43	5	+ 2.882	-.007	55.1	61 41 32.9	3	+ 19.35	+ 0.11	54.4
1944 Carrington.	8.0	7	13 1 31.44	6	+ 2.964	...	54.6	3 21 41.7	1	+ 19.34	...	55.3
θ Virginis	4.3	...	13 2 42.36	5	+ 3.102	-.004	55.1	94 47 26.8	3	+ 19.31	+ 0.04	55.1
α Comæ	4.3	...	13 3 10.73	3	+ 2.952	-.027	54.3	71 44 ...	...	+ 19.30	- 0.13	...
53 Virginis....	5.0	...	13 4 40	...	+ 3.172	+ .003	...	105 26 32.3	2	+ 19.26	+ 0.30	54.4
18 Can. Ven. .	7.2	2	13 5 6.97	4	+ 2.740	-.010	55.1	48 28 ...	...	+ 19.25	+ 0.03	...
β Comæ	4.0	...	13 5 20	...	+ 2.867	-.060	...	61 24 39.8	3	+ 19.25	- 0.89	54.4
57 Virginis....	6.0	...	13 8 25	...	+ 3.209	+ .024	...	109 11 49.8	1	+ 19.17	+ 0.11	56.4
59 Virginis e .	5.0	...	13 9 49.61	3	+ 3.000	-.020	56.4	79 50 35.4	1	+ 19.13	- 0.16	56.4
2006 Gr.	7.5	2	13 11 13.37	3	- 11.556	...	56.4	1 36 0.7	2	+ 19.10	...	55.6
20 Can. Ven. .	4.7	...	13 11 15.67	4	+ 2.713	-.013	54.9	48 41 20.5	2	+ 19.10	- 0.03	54.9
4462 B.A.C.	7.4	3	13 13 30	...	+ 3.030	...	...	84 26 13.4	3	+ 19.03	+ 0.12	54.4
4473 B.A.C.	7.1	3	13 15 15.16	4	+ 3.113	+ .003	54.9	95 28 ...	...	+ 18.98	+ 0.32	...
66 Virginis ...	6.0	...	13 17 15	...	+ 3.106	+ .012	...	94 25 53.1	1	+ 18.93	+ 0.02	56.4
Spica	1.0	...	13 17 49.36	9	+ 3.154	-.005	55.6	100 25 46.4	10	+ 18.91	+ 0.04	54.8
ζ Urs. Maj. (1st)	2.0	...	13 18 17.07	1	+ 2.416	+ .017	56.4	34 20 35.1	3	+ 18.90	+ 0.04	54.9
ζ Urs. Maj. (2d)	4.5	...	13 18 20	...	+ 2.416	+ .014	...	34 20 42.5	1	+ 18.90	+ 0.05	56.9
1995 Carrington.	8.6	9.5	13 18 28.77	10	- 1.714	...	56.1	5 21 31.1	2	+ 18.89	...	55.0
80 Urs. Maj. g	5.0	...	13 19 35	...	+ 2.404	+ .016	...	34 16 54.4	1	+ 18.86	+ 0.03	56.4

Nos. 836-870.

Star.	Magnitudes.	Estimates of Magnitudes.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
2007 Gr.	7.7	2	13 20 27.19	1	- 2.752	...	56.4	4 30 50.2	1	+ 18.83	...	55.3
4496 B.A.C.	8.0	2	13 21 5.99	3	+ 3.073	+ .017	54.4	90 6 ...	..	+ 18.81	+ 0.52	...
70 Virginis ...	5.0	...	13 21 35	..	.....	- .014	...	75 28 22.1	1	+ 18.80	+ 0.58	54.4
2006 Carrington..	7.5	6	13 21 43.62	6	- 1.895	...	54.9	5 22 6.6	1	+ 18.79	...	57.0
4515 B.A.C.	7.3	1	13 24 35.10	1	+ 3.086	- .047	56.4	91 36 ...	..	+ 18.70	- 0.22	...
75 Virginis ...	6.7	2	13 25 23.08	2	+ 3.200	- .001	56.4	104 38 30.6	2	+ 18.68	+ 0.10	55.4
S Virginis	Var.	4.5	13 25 41.62	2	+ 3.127	...	54.4	96 28 24.0	3	+ 18.67	...	54.4
ζ Virginis	3.7	...	13 27 33.69	3	+ 3.071	- .019	54.4	89 52 44.4	4	+ 18.61	- 0.06	55.4
24 Can. Ven. .	5.0	...	13 28 43.83	4	+ 2.476	- .015	56.2	40 14 ...	..	+ 18.57	0.00	...
81 Virginis (1)	7.8	3	13 30 15.44	3	+ 3.136	+ .003	54.4	97 9 24.7	2	+ 18.52	+ 0.14	54.9
81 Virg. (cent.)	7.3	...	13 30 15	..	+ 3.136	+ .003	...	97 9 24.9	1	+ 18.52	+ 0.14	54.3
81 Virginis (2)	8.4	3	13 30 15.48	3	+ 3.136	+ .003	54.4	97 9 22.5	1	+ 18.52	+ 0.14	54.4
82 Urs. Maj. ...	5.7	...	13 34 5	..	+ 2.348	- .011	...	36 22 10.9	2	+ 18.39	+ 0.01	56.2
2045 Carrington..	7.9	9	13 35 20.80	9	- 4.634	...	55.2	4 0 38.9	3	+ 18.35	...	55.7
2065 Gr.	8.3	2	13 35 31.55	2	- 14.828	...	56.0	1 43 54.4	1	+ 18.34	...	56.4
84 Virginis o .	6.1	4.5	13 36 1.59	5	+ 3.032	- .023	55.2	85 45 6.8	3	+ 18.32	+ 0.06	54.4
85 Virginis ...	6.9	2	13 38 3.18	2	+ 3.222	.000	56.4	105 3 45.3	3	+ 18.25	+ 0.11	54.4
7 Boötis	4.7	...	13 40 36.79	5	+ 2.886	- .034	55.2	71 50 37.7	3	+ 18.15	- 0.05	55.0
89 Virginis *	5.0	...	13 42 0	..	+ 3.253	- .009	...	107 26 7.8	1	+ 18.10	+ 0.03	54.3
η Urs. Maj. ...	2.0	...	13 42 1.34	5	+ 2.385	- .012	55.2	39 59 13.0	2	+ 18.10	+ 0.03	54.9
4613 B.A.C.	7.0	...	13 42 30	..	+ 3.285	- .001	...	110 10 19.6	1	+ 18.08	+ 0.16	54.4
6 Boötis e	5.0	...	13 43 10	..	+ 2.838	+ .006	...	68 2 21.0	2	+ 18.06	- 0.16	54.4
4634 B.A.C.	7.8	2	13 45 50	..	+ 2.885	+ .012	...	72 34 36.1	2	+ 17.95	- 0.25	54.4
η Boötis	3.0	...	13 48 1.20	5	+ 2.862	- .004	55.2	70 54 ...	..	+ 17.87	+ 0.36	...
4658 B.A.C.	7.0	...	13 51 0	..	+ 3.198	+ .029	...	101 22 12.1	3	+ 17.75	+ 0.20	54.4
48 Hydræ	6.0	1	13 52 10	..	+ 3.356	- .012	...	114 19 30.8	3	+ 17.70	+ 0.09	54.4
7 Virginis	4.0	...	13 54 30	..	+ 3.047	+ .005	...	87 46 35.4	1	+ 17.60	+ 0.07	56.4
π Hydræ	3.7	...	13 58 25	..	+ 3.394	+ .007	...	116 0 20.5	3	+ 17.44	+ 0.14	54.4
95 Virginis . *	6.5	0.5	13 59 18.97	2	+ 3.173	- .007	54.3	98 38 37.2	1	+ 17.40	- 0.02	54.3
4691 B.A.C.	7.0	...	13 59 40	..	+ 3.257	- .005	...	105 31 17.3	2	+ 17.39	+ 0.27	54.4
2112 Carrington..	8.6	6	14 0 17.19	7	- 6.240	...	55.3	4 7 ...	..	+ 17.36	...	...
2099 Gr.	7.0	4	14 4 27.93	3	- 7.996	...	54.4	3 34 20.6	1	+ 17.17	...	56.4
4711 B.A.C.	6.7	1	14 5 10	..	+ 3.410	...	...	115 57 10.5	3	+ 17.14	+ 0.11	54.4
κ Virginis	4.3	...	14 5 26.02	4	+ 3.190	+ .001	55.0	99 37 13.3	2	+ 17.13	- 0.02	55.3
4719 B.A.C.	7.3	1	14 6 55.40	2	+ 3.456	- .017	56.4	118 37 33.2	1	+ 17.06	- 0.49	56.4

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		" "		" "	" "	
4720 B.A.C.....	6.7	1	14 7 4.15	1	+ 3.137	-.015	54.4	95 18 ... ..	..	+ 17.05	- 0.02	...
Arcturus	1.0	...	14 9 16.62	4	+ 2.813	-.079	55.4	70 5 12.1 2	2	+ 16.95	+ 1.93	54.4
4731 B.A.C.....	6.6	5	14 9 29.41	4	+ 2.817	+ .004	56.4	70 26 3.2 5	5	+ 16.94	+ 0.06	55.2
ϵ Boötis.....	4.3	...	14 11 10	..	+ 2.145	-.018	...	37 59 7.2 1	1	+ 16.86	- 0.08	56.4
λ Virginis ...*	4.7	...	14 11 32.51	2	+ 3.235	-.002	55.8	102 43 27.5 1	1	+ 16.84	- 0.02	56.3
20 Boötis.....	5.0	...	14 13 7.77	2	+ 2.848	-.008	54.4	73 3 ... ..	..	+ 16.77	- 0.10	...
51 Hydre	5.5	1	14 15 2.34	1	+ 3.453	-.011	56.4	117 6 32.3 1	1	+ 16.68	+ 0.12	54.4
4769 B.A.C.....	7.3	4	14 17 2.69	3	+ 2.986	+ .019	56.4	83 32 25.3 3	3	+ 16.58	+ 0.27	54.4
4781 B.A.C.....	8.5	1	14 18 35	..	+ 3.446	+ .007	...	116 13 25.3 1	1	+ 16.50	- 0.93	56.4
θ Boötis	3.7	...	14 20 25.88	2	+ 2.070	-.029	55.4	37 30 2.5 2	2	+ 16.41	+ 0.41	56.4
24 Boötis g ...	6.0	6	14 23 45.61	5	+ 2.121	-.030	55.2	39 31 36.9 4	4	+ 16.24	+ 0.09	56.4
ρ Boötis	3.7	...	14 25 47.77	1	+ 2.595	-.008	56.4	59 0 43.6 2	2	+ 16.13	- 0.14	54.4
γ Boötis	2.7	...	14 26 26.49	3	+ 2.428	-.004	54.4	51 4 40.0 1	1	+ 16.10	- 0.16	55.4
σ Boötis	4.7	...	14 28 35.11	5	+ 2.599	+ .016	56.0	59 38 38.4 3	3	+ 15.99	- 0.12	54.4
4826 B.A.C.....	7.4	2	14 28 55	..	+ 1.978	-.001	...	36 29 5.5 2	2	+ 15.97	- 0.30	56.4
2184 Carrington.	9.2	2	14 30 47.65	5	- 20.950	...	56.1	1 57 ... ..	..	+ 15.87	...	...
4845 B.A.C.....	6.0	...	14 33 50	..	+ 1.901	+ .017	...	35 22 12.8 1	1	+ 15.71	+ 0.06	57.0
4848 B.A.C.....	7.0	1	14 34 30	..	+ 3.243	+ .038	56.4	101 38 4.0 1	1	+ 15.67	+ 0.04	56.2
54 Hydr.(1) }	6.0	...	14 37 54.32	1	+ 3.465	-.016	56.4	114 50 45.7 1	1	+ 15.48	+ 0.08	55.4
54 Hydr.(2) }		...	14 37 55	..	+ 3.465	-.016	...	114 50 52.5 2	2	+ 15.48	+ 0.08	56.4
108 Virginis ..	6.5	1	14 38 22.52	2	+ 3.053	-.013	54.4	88 41 23.4 1	1	+ 15.46	- 0.05	56.4
ϵ Boötis	2.3	...	14 38 52.44	5	+ 2.624	-.005	55.6	62 20 ... ..	..	+ 15.43	- 0.01	...
58 Hydre	5.7	...	14 41 50	..	+ 3.521	-.021	...	117 22 ... 3	3	+ 15.25	+ 0.05	55.7
α^2 Libræ	2.3	...	14 43 8.46	5	+ 3.314	-.007	...	105 27 27.0 1	1	+ 15.19	+ 0.06	55.3
ξ Boötis (1st)	6.6	...	14 44 55	..	+ 2.756	+ .012	...	70 18 54.3 1	1	+ 15.08	+ 0.14	56.4
ξ Boötis (2d).	4.7	...	14 44 56.13	1	+ 2.756	-.012	56.4	70 18 55.6 1	1	+ 15.08	+ 0.14	56.4
4911 B.A.C.....	6.0	...	14 46 3.72	1	+ 3.558	+ .030	56.4	117 47 ... ..	..	+ 15.01	+ 0.73	...
4918 B.A.C.....	5.7	2	14 47 53.34	3	+ 1.532	-.022	54.4	30 8 8.5 3	3	+ 14.91	- 0.07	56.1
ξ^2 Libræ	5.0	...	14 49 10.60	1	+ 3.244	-.001	56.4	100 50 31.2 1	1	+ 14.84	+ 0.03	54.4
4923 B.A.C.(1)	8.0	1	14 49 17.22	1	+ 3.413	+ .068	56.4	110 47 ... ..	..	+ 14.83	+ 1.68	...
4923 B.A.C.(2)	5.7	1	14 49 17.88	1	+ 3.413	+ .068	56.4	110 47 ... ..	..	+ 14.83	+ 1.68	...
16 Libræ	4.7	...	14 49 50	..	+ 3.131	.000	...	93 46 19.2 1	1	+ 14.79	+ 0.10	55.4
β Urs. Min....	2.0	...	14 51 10	..	- 0.254	-.005	...	15 16 21.8 5	5	+ 14.72	+ 0.03	54.8
20 Libræ	3.5	...	14 55 53	..	+ 3.499	-.007	...	114 43 43.8 2	2	+ 14.44	+ 0.03	56.5
β Boötis	3.0	...	14 56 40.43	3	+ 2.264	-.003	54.4	49 3 18.7 2	2	+ 14.39	+ 0.06	56.4

Nos. 906—940.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
2210 Gr.	7.1	3	14 57 28.10	4	- 12.324	...	56.4	3 28 ...	..	+ 14.34	...	...
ν^1 Libræ*	5.7	0.5	14 58 49.40	2	+ 3.337	+ .001	54.4	105 42 40.7	3	+ 14.26	+ 0.03	54.4
44 Boötis (1st)	6.1	...	14 59 10.48	1	+ 2.018	- .045	56.4	41 48 ...	..	+ 14.23	- 0.02	...
44 Boötis (2d)	5.2	...	14 59 10.72	2	+ 2.018	- .045	55.5	41 47 56.6	2	+ 14.23	- 0.02	55.9
9 Urs. Min. ...	6.3	1	15 0 20	..	+ 0.103	- .063	...	17 41 16.0	1	+ 14.17	- 0.13	56.9
45 Boötis c ...	4.7	...	15 1 9.24	1	+ 2.620	+ .013	56.5	64 35 2.3	1	+ 14.11	+ 0.16	56.5
ϵ^1 Libræ*	5.2	1.5	15 4 14.88	3	+ 3.408	- .002	56.4	109 15 32.7	3	+ 13.92	+ 0.04	56.4
ϵ^2 Libræ*	6.5	1	15 5 21.18	1	+ 3.407	.000	55.4	109 7 1.4	3	+ 13.84	- 0.10	54.4
2213 Gr.	7.0	7	15 6 12.32	10	- 6.993	...	55.5	5 30 31.0	3	+ 13.79	...	56.1
β Libræ*	2.0	...	15 9 28.74	5	+ 3.225	- .009	55.9	98 51 49.1	3	+ 13.58	+ 0.01	54.4
δ Boötis*	3.0	...	15 9 51.78	2	+ 2.411	+ .009	56.4	56 9 38.8	3	+ 13.56	+ 0.09	56.4
2283 Carring..	8.2	5	15 11 58.70	4	- 7.376	...	55.4	5 25 52.4	1	+ 13.42	...	56.4
5 Serpentis ...	5.0	...	15 12 10	..	+ 3.032	+ .012	...	87 42 9.0	2	+ 13.41	+ 0.54	56.4
2290 Carring..	7.7	5.5	15 13 38.93	9	- 11.383	...	55.2	3 57 ...	..	+ 13.31	...	...
5064 B.A.C....	8.0	1	15 15 6.12	2	+ 1.842	+ .018	54.4	39 17 ...	..	+ 13.22	+ 0.07	...
S Serpentis ...	Var.	1.5	15 15 6.45	2	+ 2.806	...	56.4	75 11 ...	..	+ 13.22	...	...
5066 B.A.C....	7.0	...	15 15 40	..	+ 3.581	- .001	...	116 48 6.1	1	+ 13.18	+ 0.30	54.4
ϵ Libræ*	5.0	...	15 16 36.94	2	+ 3.247	- .002	55.5	99 48 57.7	2	+ 13.12	+ 0.19	55.4
η Cor. Bor. ...	5.0	...	15 17 25.43	1	+ 2.467	+ .013	55.4	59 12 15.0	2	+ 13.06	+ 0.19	56.5
ζ^1 Libræ*	4.0	...	15 20 22.06	4	+ 3.371	+ .002	55.9	106 13 31.7	3	+ 12.87	+ 0.05	56.1
γ Urs. Min....	3.0	...	15 21 0	..	- 0.156	+ .018	...	17 40 5.0	3	+ 12.82	- 0.06	56.6
ϵ Draconis	3.0	...	15 21 49.64	1	+ 1.324	+ .010	56.4	30 32 32.5	2	+ 12.77	- 0.04	56.4
2283 Gr.	6.9	2	15 24 3.50	4	- 23.536	...	55.0	2 14 ...	..	+ 12.62	...	...
5116 B.A.C....	6.8	3	15 25 11.83	2	+ 1.046	- .054	56.5	27 14 22.4	3	+ 12.54	+ 0.13	56.4
5117 B.A.C....	7.5	2	15 25 36.28	5	+ 3.553	+ .002	56.0	114 38 5.9	1	+ 12.51	+ 0.32	54.4
37 Libræ*	5.0	...	15 26 31.72	2	+ 3.249	+ .019	56.4	99 34 52.8	3	+ 12.45	+ 0.23	54.4
γ Libræ*	4.3	...	15 27 41.94	2	+ 3.340	+ .002	54.4	104 19 ...	..	+ 12.37	- 0.02	...
δ Serpentis (1)	4.0	...	15 28 6.98	2	+ 2.866	+ .001	56.5	78 59 32.0	1	+ 12.34	- 0.05	56.5
δ Serpentis (2)	3.0	...	15 28 7.11	2	+ 2.866	+ .001	56.5	78 59 26.5	2	+ 12.34	- 0.05	56.5
α Cor. Bor. ...	2.0	...	15 28 45.73	5	+ 2.529	+ .009	56.0	62 48 42.3	2	+ 12.30	+ 0.07	56.4
5147 B.A.C....	6.0	...	15 29 0	..	+ 0.838	+ .020	...	25 19 13.6	2	+ 12.29	- 0.01	56.4
41 Libræ*	6.0	...	15 30 51.16	2	+ 3.435	+ .010	56.4	108 50 15.1	2	+ 12.15	+ 0.05	55.5
5177 B.A.C....	6.7	1	15 33 47.24	2	+ 1.909	+ .011	56.5	42 44 21.4	3	+ 11.95	+ 0.12	56.6
κ Libræ*	5.0	...	15 33 53.14	2	+ 3.447	- .003	56.4	109 13 19.8	2	+ 11.94	+ 0.13	56.4
ζ Cor. Bor. (1)	6.0	0.5	15 34 6.09	1	+ 2.259	+ .013	55.5	52 54 ...	..	+ 11.92	+ 0.10	...

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
ζ Cor. Bor. (2)	4.0	...	15 34 6.57	2	+ 2.259	+ .013	55.5	52 54 28.0	1	+ 11.92	+ 0.10	54.5
5184 B.A.C....	7.1	2	15 34 54.37	1	+ 3.373	— .017	56.5	105 33 43.6	1	+ 11.87	+ 0.16	56.4
5188 B.A.C....	6.7	0.5	15 35 34.08	2	+ 3.352	...	56.4	104 35 ...	..	+ 11.82	+ 0.14	...
η Libræ.....*	4.5	...	15 36 12.28	2	+ 3.366	+ .001	54.4	105 13 26.2	1	+ 11.77	+ 0.06	55.4
ψ Serpenteis ...	5.9	2	15 36 59.65	1	+ 3.016	.000	56.5	87 1 57.1	2	+ 11.72	+ 0.15	54.4
α Serpenteis ...	2.3	...	15 37 22.49	5	+ 2.941	+ .009	56.0	83 7 52.3	3	+ 11.69	— 0.05	56.5
5215 B.A.C....	8.5	1	15 39 48.26	2	+ 3.662	— .018	56.4	118 21 4.2	1	+ 11.52	— 0.38	56.4
R Cor. Bor....	Var.	3.5	15 42 48.64	2	+ 2.470	+ .017	55.5	61 24 39.0	3	+ 11.30	0.00	54.4
ε Serpenteis....	3.3	...	15 43 50.25	1	+ 2.977	+ .014	55.5	85 5 54.0	3	+ 11.23	— 0.05	55.8
5249 B.A.C....	6.0	1	15 44 32.78	3	+ 0.890	+ .030	56.5	26 58 3.0	2	+ 11.18	+ 0.05	56.5
θ Libræ.....	4.7	...	15 45 51.63	3	+ 3.398	+ .009	55.1	106 18 53.9	3	+ 11.08	— 0.12	56.1
κ Cor. Bor. ...	4.7	...	15 45 57.59	1	+ 2.259	— .002	56.5	53 54 22.0	2	+ 11.07	+ 0.33	56.4
3 Scorpil*	6.0	...	15 46 15.53	1	+ 3.588	— .003	56.4	114 49 ...	..	+ 11.05	+ 0.19	...
4 Scorpil*	6.0	...	15 47 2.83	2	+ 3.614	— .003	55.5	115 51 1.1	1	+ 10.99	+ 0.14	54.4
χ Herculis	4.3	...	15 47 50.22	2	+ 2.032	+ 0.40	56.5	47 9 17.1	1	+ 10.94	— 0.58	56.4
ζ Urs. Min....	4.3	...	15 49 10	..	— 2.324	+ .029	...	11 46 ...	4	+ 10.84	+ 0.08	55.0
2380 Carring..	6.8	6	15 49 22.35	10	— 10.562	...	56.8	4 43 ...	..	+ 10.84	...	...
2 Herculis	6.0	0.5	15 49 57.97	3	+ 2.000	+ .011	54.5	46 27 ...	..	+ 10.78	— 0.06	...
γ Serpenteis ...	3.7	...	15 49 59.52	1	+ 2.745	+ .023	56.4	73 52 43.5	2	+ 10.78	+ 1.24	56.5
π Scorpil*	6.0	...	15 50 23.39	2	+ 3.615	— .003	56.4	115 42 ...	..	+ 10.75	+ 0.04	...
δ Scorpil*	3.0	...	15 52 3.64	2	+ 3.535	— .001	55.5	112 12 ...	..	+ 10.62	+ 0.01	...
49 Libræ.....	6.0	...	15 52 28.41	2	+ 3.400	— .049	56.4	106 7 4.2	3	+ 10.59	+ 0.37	55.8
5 Herculis r....	5.7	...	15 54 57.19	1	+ 2.696	— .002	56.5	71 47 31.8	2	+ 10.41	— 0.17	56.5
ρ Cor. Bor. ...	5.0	1	15 55 41.49	1	+ 2.307	— .013	55.5	56 16 17.1	1	+ 10.35	+ 0.76	54.5
51 Libræ(1&2)	4.5	...	15 56 40.35	2	+ 3.295	— .008	56.4	100 59 2.4	1	+ 10.28	+ 0.02	56.4
51 Libræ (3d)	7.0	0.5	15 56 40.91	1	+ 3.295	— .008	56.5	100 59 ...	..	+ 10.28	+ 0.02	...
β ¹ Scorpil	2.0	...	15 57 18.20	3	+ 3.478	— .002	54.8	109 25 7.5	3	+ 10.23	+ 0.02	55.1
β Scorpil (2d)	4.5	1	15 57 18.60	1	+ 3.478	— .005	55.4	109 24 54.0	2	+ 10.23	+ 0.09	55.4
θ Draconis....	3.7	...	15 59 16.42	2	+ 1.152	— .027	56.5	31 3 35.9	4	— 10.09	— 0.33	56.5
τ Cor. Bor. ...	4.7	...	16 3 51.30	1	+ 2.196	— .003	56.5	53 9 2.7	2	+ 9.73	— 0.36	55.5
φ Herculis....	4.0	...	16 4 21.49	3	+ 1.889	— .019	54.4	44 41 45.5	2	+ 9.70	— 0.02	56.3
2423 Carring..	6.6	5	16 5 33.27	6	— 12.531	...	56.3	4 18 9.0	2	+ 9.60	...	56.4
14 Herculis ...	6.5	1	16 5 51.96	1	+ 1.929	+ .014	54.4	45 48 18.1	2	+ 9.58	+ 0.34	56.0
2424 Carring..	7.2	1	16 6 20.40	4	— 8.148	...	55.1	5 59 ...	..	+ 9.54	...	...
49 Serpent.(1)	7.3	1	16 6 46.87	1	+ 2.781	+ .014	56.4	76 6 ...	..	+ 9.51	+ 0.40	...

Nos. 976—1010.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
49 Serpent. (2)	7.3	0.5	16 6 47.06	1	+ 2.781	+ .014	56.4	76 6 ...	..	+ 9.51	+ 0.40	...
δ Ophiuchi ...	3.0	...	16 7 0.78	5	+ 3.141	— .006	56.3	93 19 52.3	2	+ 9.49	+ 0.13	56.5
σ Cor. Bor....	6.0	...	16 9 26.48	1	+ 2.266	— .028	55.5	55 47 2.4	1	+ 9.30	+ 0.04	54.5
σ Scorpii *	3.3	...	16 12 41.03	3	+ 3.635	— .003	56.4	115 15 9.9	4	+ 9.05	— 0.01	56.2
5453 B.A.C.	7.5	3	16 13 47.60	2	+ 0.291	+ .041	56.5	23 16 33.1	3	+ 8.96	— 0.06	56.5
19 Urs. Min....	6.0	1	16 14 52.19	1	— 1.818	— .031	56.4	13 46 18.5	3	+ 8.88	0.00	55.6
γ Herculis....	3.0	...	16 15 44.74	3	+ 2.647	— .001	56.5	70 30 55.2	1	+ 8.81	— 0.05	56.5
5465 B.A.C.	7.0	...	16 15 54.20	1	+ 3.680	+ .019	56.4	116 49 ...	..	+ 8.80	— 0.03	...
5487 B.A.C.	7.3	1	16 18 44.50	2	+ 3.741	+ .021	56.4	118 57 59.9	1	+ 8.58	+ 0.01	56.5
Antares	1.3	...	16 20 49.71	6	+ 3.667	— .001	55.8	116 7 3.4	4	+ 8.41	+ 0.03	56.0
η Urs. Min....	5.0	...	16 21 38.76	3	— 1.831	+ .005	56.5	13 55 28.6	4	+ 8.34	— 0.26	56.0
η Draconis ...	2.7	...	16 22 6.36	3	+ 0.800	+ .023	56.5	28 10 5.7	1	+ 8.31	— 0.08	56.5
β Herculis ...	2.5	...	16 24 12.23	1	+ 2.583	— .006	56.5	68 12 7.1	2	+ 8.14	— 0.01	56.6
τ Scorpii *	3.3	...	16 27 10.38	6	+ 3.723	— .001	56.3	117 55 18.0	4	+ 7.90	+ 0.02	56.5
12 Ophiuchi ..	5.0	...	16 29 0.21	3	+ 3.116	+ .030	56.5	92 1 20.8	4	+ 7.76	+ 0.32	55.5
5560 B.A.C.	6.0	1	16 30 27.35	3	+ 0.831	+ .019	56.2	28 52 57.3	5	+ 7.64	— 0.04	56.4
5579 B.A.C. *	5.5	0.5	16 33 28.60	1	+ 3.463	— .004	56.5	107 28 5.9	3	+ 7.39	— 0.01	56.5
5595 B.A.C.	6.7	1	16 35 13.09	2	+ 3.695	...	56.5	116 32 ...	..	+ 7.25	+ 0.27	...
ζ Herculis	2.7	...	16 36 0.55	5	+ 2.296	— .034	55.1	58 8 27.9	3	+ 7.19	— 0.45	54.5
15 Ophiuchi ..	7.0	...	16 36 43.75	1	+ 3.600	+ .002	56.5	112 55 11.3	1	+ 7.13	— 0.10	56.5
η Herculis....	3.0	...	16 38 5.84	5	+ 2.050	+ .002	55.7	50 48 33.0	1	+ 7.02	+ 0.07	55.5
41 Herculis ...	6.7	1	16 38 10.85	2	+ 2.932	— .015	56.6	83 38 23.8	1	+ 7.01	+ 0.16	56.6
25 Scorpii....	6.5	0.5	16 38 17.36	2	+ 3.663	+ .006	56.5	115 16 11.4	2	+ 7.00	+ 0.24	56.5
ε Scorpii	3.0	...	16 41 6.29	3	+ 3.922	— .051	56.5	124 2 ...	..	+ 6.77	+ 0.33	...
5658 B.A.C.	7.1	1.5	16 43 59.28	2	+ 1.222	+ .035	56.5	34 20 27.1	4	+ 6.53	+ 0.03	55.4
κ Ophiuchi....	3.3	...	16 51 2.58	3	+ 2.857	— .023	56.5	80 24 15.7	4	+ 5.94	— 0.02	55.0
5709 B.A.C.	6.0	1	16 51 23.89	1	+ 3.664	.000	56.5	114 52 33.5	3	+ 5.92	+ 0.16	55.9
5720 B.A.C.	7.0	...	16 53 17.59	1	+ 3.376	— .021	56.6	103 20 ...	..	+ 5.75	+ 0.33	...
19 Draconis A ¹	5.0	1	16 55 15.83	1	+ 0.274	+ .033	56.5	24 39 4.1	4	+ 5.59	— 0.03	56.4
31 Ophiuchi ..	6.5	1	16 56 7.28	1	+ 3.683	+ .008	56.5	115 27 ...	..	+ 5.52	+ 0.19	...
5752 B.A.C.	6.5	...	16 56 47.65	1	+ 1.099	+ .015	56.6	33 6 16.2	3	+ 5.46	— 0.37	56.6
ι Ophiuchi	6.4	4	16 57 31.15	2	+ 2.756	— .004	55.5	76 13 40.9	3	+ 5.40	+ 0.13	54.5
61 Herculis c.	6.3	1	16 58 28.80	2	+ 2.148	+ .015	56.5	54 23 8.8	1	+ 5.32	+ 0.05	56.5
ε Urs. Min....	4.3	...	17 0 26.97	+	— 6.436	+ .009	56.5	7 44 19.4	5	+ 5.15	— 0.01	55.9
η Ophiuchi ...	2.3	...	17 2 21.08	10	+ 3.432	.000	55.6	105 32 52.9	4	+ 5.00	— 0.12	56.0

Star.	Magnitudes.	Estimates of Magnitude.	Mean P.A. 1860.	No. of Obs.	Precession.	Proper Motion.	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion.	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
5797 R.A.C.	7.0	3	17 4 54.76	1	+ 0.957	+ .019	56.5	31 32 51.2	2	+ 4.77	+ 0.10	56.6
63 Hercules ...	6.5	2	17 5 15.55	1	+ 2.482	+ .026	56.5	65 35 18.7	2	+ 4.75	- 0.08	56.6
5800 R.A.C.	6.5	1	17 5 31.30	2	+ 3.729	- .006	56.5	116 48 46.4	1	+ 4.72	+ 0.12	56.5
2565 Carrington.	8.1	9	17 6 22.61	10	- 1.465	...	55.9	5 6 44.4	3	+ 4.65	...	55.8
A Ophiuchi (1)	4.0	...	17 6 44.59	4	+ 3.717	- .037	56.1	116 23 37.7	3	+ 4.62	+ 1.12	56.5
A Ophiuchi (2)	6.0	...	17 6 44.89	2	+ 3.717	- .037	56.5	116 23 32.2	3	+ 4.62	+ 1.12	56.5
5813 B.A.C.	7.0	2	17 7 37.22	2	+ 3.717	- .036	54.5	116 20 ...	...	+ 4.54	+ 1.15	...
5815 B.A.C.	7.5	...	17 7 51.13	2	+ 3.683	- .011	56.5	115 8 37.4	2	+ 4.53	...	54.6
α Hercules (1)	Var.	...	17 8 15.88	3	+ 2.733	- .003	55.2	75 26 49.2	1	+ 4.49	- 0.04	55.6
α Hercules (2)	6.0	...	17 8 16.37	1	+ 2.733	- .003	56.6	75 26 53.2	1	+ 4.49	- 0.04	56.6
ζ Draconis	3.0	...	17 8 23.36	1	+ 0.160	+ .002	56.6	24 6 47.0	4	+ 4.48	- 0.07	56.3
δ Hercules	3.0	...	17 9 16.91	2	+ 2.463	- .003	54.5	65 0 ...	...	+ 4.40	+ 0.15	...
5831 B.A.C.	6.0	...	17 9 34.43	1	+ 3.651	+ .003	56.5	113 55 ...	...	+ 4.58	+ 0.12	...
ξ Ophiuchi	5.0	...	17 12 37.06	5	+ 3.573	+ .017	55.3	110 57 31.9	3	+ 4.12	+ 0.21	55.2
69 Hercules <i>e</i> .	5.0	...	17 12 50.69	5	+ 2.069	- .001	55.3	52 33 35.0	2	+ 4.10	- 0.11	55.6
η Carrington ..	8.5	12	17 12 53.33	14	- 104.236	...	55.6	0 41 55.4	4	+ 4.09	...	56.2
5846 B.A.C.	6.7	1	17 13 6.61	2	+ 3.676	- .002	56.6	114 45 38.1	2	+ 4.08	+ 0.10	56.6
5853 B.A.C.	6.8	2	17 13 15.04	2	+ 1.521	+ .026	56.5	40 10 ...	...	+ 4.06	+ 0.21	...
θ Ophiuchi ...	3.3	...	17 13 24.90	6	+ 3.679	- .003	56.0	114 51 20.0	7	+ 4.05	- 0.02	56.5
5858 B.A.C.	7.5	0.5	17 14 33.65	1	+ 3.682	+ .033	56.6	114 57 31.7	2	+ 3.95	+ 0.16	56.6
72 Hercules <i>w</i>	5.3	...	17 15 25.48	1	+ 2.231	+ .011	56.6	57 21 ...	...	+ 3.88	+ 1.00	...
5873 B.A.C.	7.0	...	17 17 19.58	2	+ 3.755	+ .024	56.4	117 28 ...	...	+ 3.71	- 0.03	...
5875 B.A.C.	7.3	1	17 17 25.97	3	+ 3.779	- .002	56.6	118 17 ...	...	+ 3.70	- 0.32	...
44 Ophiuchi <i>b</i>	5.0	...	17 17 49.57	1	+ 3.658	- .002	55.5	114 2 28.2	1	+ 3.67	+ 0.12	55.2
73 Hercules ...	6.4	3	17 18 15.27	3	+ 2.511	+ .012	56.5	66 54 24.3	2	+ 3.63	+ 0.02	54.6
45 Ophiuchi <i>d</i>	5.0	...	17 18 25.10	2	+ 3.823	- .002	56.5	119 44 11.6	3	+ 3.62	+ 0.20	56.0
5884 B.A.C.	6.8	1.5	17 18 42.24	2	+ 3.819	+ .004	56.6	119 35 57.5	2	+ 3.60	+ 0.56	56.6
5895 B.A.C.	6.4	3	17 19 36.25	2	+ 2.077	- .010	56.6	52 55 17.4	2	+ 3.52	...	56.5
5896 B.A.C.	7.0	...	17 20 0.67	2	+ 3.697	+ .011	56.5	115 23 ...	...	+ 3.47	+ 0.15	...
β Draconis ...	2.7	...	17 27 16.18	5	+ 1.354	- .003	56.1	37 35 36.2	8	+ 2.86	0.00	55.9
α Ophiuchi ...	2.0	...	17 28 26.21	10	+ 2.774	+ .004	55.7	77 20 4.2	4	+ 2.75	+ 0.20	55.0
ν^1 Draconis ...	5.0	1	17 29 25.21	3	+ 1.160	+ .030	56.5	34 43 9.0	3	+ 2.67	- 0.06	56.5
ν^2 Draconis ...	5.0	1	17 29 30.48	3	+ 1.160	+ .017	56.5	34 43 50.1	3	+ 2.66	- 0.03	56.5
27 Draconis <i>f'</i>	5.5	2	17 32 31.87	5	- 0.250	- .007	56.3	21 46 33.9	4	+ 2.40	- 0.11	55.7
26 Draconis ...	5.9	3	17 33 32.85	3	+ 0.575	+ .037	56.6	28 1 5.3	3	+ 2.31	+ 0.36	56.6

Nos. 1046—1080.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.			No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	Mean N.P.D. 1860.			No. of Obs.	Preces- sion.	Proper Motion	Mean Date.		
			h.	m.	s.		s.	s.		°	'	"		"	"			
ϵ Herculis	3.3	...	17	35	30.92	3	+	1.691	+ .014	54.5	43	55	1.0	7	+	2.14	— 0.01	55.4
2642 Carring.	7.3	16	17	36	6.16	18	—	11.329	...	55.6	5	16	31.0	2	+	2.09	...	56.6
β Ophiuchi ...	3.0	...	17	36	33.48	5	+	2.964	— .005	56.2	85	22	14.8	4	+	2.05	— 0.17	55.1
84 Herculis ...	5.7	1	17	37	36.88	3	+	2.468	— .006	56.5	65	36	31.0	2	+	1.96	— 0.11	56.5
ω Draconis ...	5.0	...	17	37	46.64	1	—	0.363	+ .003	56.6	21	10	40.5	1	+	1.94	— 0.31	55.1
γ Sagittarii ...	5.0	...	17	38	44.98	1	+	3.773	— .010	...	117	46	22.1	2	+	1.86	+ 0.02	56.6
μ Herculis	3.3	...	17	40	58.87	5	+	2.369	— .024	55.4	62	11	40.5	5	+	1.66	+ 0.72	56.5
6030 B.A.C.	6.4	5.5	17	42	43.12	5	+	2.605	+ .017	56.1	70	41	49.1	4	+	1.51	+ 0.01	55.6
87 Herculis ...	5.8	2	17	43	8.57	3	+	2.431	.000	56.5	64	19	39.4	3	+	1.47	— 0.21	56.6
ψ^1 Draconis(1)	4.3	...	17	44	26.00	3	—	1.088	— .006	55.9	17	47	1.1	11	+	1.36	+ 0.28	55.2
ψ^1 Draconis(2)	6.2	4	17	44	27.66	4	—	1.090	— .002	55.1	17	46	30.6	4	+	1.36	+ 0.26	56.0
30 Draconis...	5.4	2	17	45	43.65	3	+	1.435	— .008	56.6	39	11	0.5	1	+	1.25	— 0.19	56.5
63 Ophinci...	6.7	3.5	17	46	17.24	3	+	3.690	+ .004	56.5	114	51	19.5	2	+	1.20	+ 0.17	56.6
2670 Carring.	9.4	5.5	17	46	44.93	5	—	22.112	...	55.3	3	2	3.2	1	+	1.16	...	54.6
2673 Carring.	8.2	3	17	47	18.04	4	—	22.160	...	55.2	3	1	41.7	2	+	1.11	...	55.6
6064 B.A.C.	6.8	3.5	17	47	55.85	3	+	3.609	— .007	56.6	111	55	42.5	1	+	1.06	+ 0.44	56.6
6065 B.A.C.	6.2	1.5	17	48	15.91	3	+	3.449	— .006	56.5	105	47	4.2	2	+	1.03	+ 0.19	56.6
ξ Draconis	3.3	...	17	51	6.59	5	+	1.023	+ .014	56.4	33	6	15.9	5	+	0.78	— 0.06	55.3
4 Sagittarii. *	5.0	...	17	51	14.80	3	+	3.661	— .005	55.5	113	47	56.6	2	+	0.77	+ 0.04	56.6
5 Sagittarii ...	6.9	2.5	17	51	36.75	3	+	3.674	+ .010	56.6	114	16	...	..	+	0.73	+ 0.04	...
ξ Herculis	3.7	...	17	52	19.57	3	+	2.323	+ .010	56.6	60	44	0.7	1	+	0.67	+ 0.02	56.5
ζ Serpentis ...	5.0	...	17	53	5.35	3	+	3.157	+ .013	56.6	93	41	...	..	+	0.61	+ 0.03	...
γ Draconis ...	2.7	...	17	53	21.50	5	+	1.391	.000	55.7	38	29	36.1	1	+	0.58	+ 0.04	56.6
35 Draconis ..	5.0	...	17	55	43.11	5	—	2.708	+ .014	56.4	13	1	18.3	7	+	0.38	— 0.24	55.1
γ^2 Sagittarii..	3.3	...	17	56	49.03	3	+	3.857	— .004	54.6	120	25	18.9	2	+	0.28	+ 0.23	55.6
70 Ophiuchi(1)	4.3	...	17	58	22.84	3	+	3.012	+ .017	55.9	87	28	...	..	+	0.14	+ 1.09	...
70 Ophiuchi(2)	6.1	2.5	17	58	23.33	4	+	3.012	+ .017	56.1	87	27	54.6	2	+	0.14	+ 1.09	56.6
6124 B.A.C.	6.0	...	17	58	29.91	3	+	3.267	+ .017	56.5	98	20	...	..	+	0.13	— 0.02	...
6138 B.A.C.	7.5	0.5	18	0	33.50	3	+	3.727	— .003	56.6	116	7	15.2	3	—	0.05	+ 0.27	56.6
100 Herc. (S.)	6.5	6	18	2	10.97	5	+	2.417	+ .002	55.5	63	54	15.6	3	—	0.19	+ 0.12	55.3
100 Herc. (N.)	7.0	2.5	18	2	11.10	5	+	2.417	+ .018	55.3	63	55	0.0	2	—	0.19	— 0.07	55.6
μ^1 Sagittarii..	4.0	...	18	5	23.56	9	+	3.587	— .004	55.6	111	5	29.8	5	—	0.47	+ 0.01	56.2
δ Sagittarii. *	3.3	...	18	12	1.98	3	+	3.839	— .001	55.5	119	53	...	..	—	1.05	+ 0.04	...
36 Draconis...	5.0	...	18	13	5.30	3	+	0.292	+ .052	56.3	25	38	59.7	5	—	1.14	— 0.01	55.9
η Serpentis ...	3.0	...	18	14	3.97	5	+	3.140	— .039	56.0	92	55	54.1	4	—	1.23	+ 0.68	55.1

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
2744 Carrington.	8.2	2	18 14 20.62	3	-10.524	...	54.1	5 36 19.8	2	-1.25	...	55.6
ε Sagittarii ...	2.7	...	18 14 52.95	3	+3.987	-.004	56.6	124 27 ...	...	-1.30	+0.14	...
108 Herculis...	6.1	3.5	18 15 33.64	3	+2.308	-.016	56.6	60 12 19.0	2	-1.36	-0.04	54.6
2751 Carrington.	7.8	6	18 16 54.00	5	-14.542	...	54.8	4 19 45.8	1	-1.48	...	56.6
δ Urs. Min. ...	4.3	...	18 17 30.56	3	-19.380	+0.048	54.2	3 23 52.1	9	-1.54	-0.03	54.4
109 Herculis...	4.0	...	18 17 43.95	3	+2.541	+0.017	55.6	68 17 27.1	1	-1.55	+0.24	56.6
λ Sagittarii ...	3.0	...	18 19 19.85	3	+3.707	-.005	55.6	115 29 42.2	2	-1.69	+0.24	56.6
2770 Carrington.	8.4	2.5	18 20 56.47	5	-40.342	...	55.3	1 45 24.2	3	-1.83	...	55.5
2769 Carrington.	8.0	2	18 21 59.47	3	-26.299	...	56.3	2 35 39.6	2	-1.92	...	55.6
24 Urs. Min. ...	6.0	...	18 22 35	...	-22.140	+0.085	...	3 1 15.4	3	-1.97	-0.01	56.6
6292 B.A.C.	6.0	...	18 23 6.28	4	+3.530	-.016	55.6	108 59 37.7	3	-2.02	+0.27	54.6
χ Draconis ...	3.7	...	18 23 34.60	3	-1.191	+0.117	56.6	17 19 45.7	3	-2.06	+0.35	56.6
6304 B.A.C.	7.0	1	18 24 40.83	2	+3.670	-.019	55.5	114 12 27.8	2	-2.15	+0.08	54.6
25 Sagittarii ..	6.7	3	18 25 58.96	3	+3.672	+0.013	56.6	114 19 ...	...	-2.27	-0.02	...
1 Aquilæ	5.5	2	18 27 35.30	5	+3.266	-.004	56.0	98 20 18.6	1	-2.41	+0.33	56.5
6336 B.A.C.	6.5	1.5	18 29 31.35	2	+3.595	-.004	56.6	111 31 ...	...	-2.57	+0.14	...
2793 Carrington.	8.6	4.5	18 29 42.35	5	-56.471	...	54.7	1 16 31.0	3	-2.59	...	55.3
6347 B.A.C.	6.3	4	18 30 32.69	2	+3.585	-.002	56.6	111 9 50.3	3	-2.67	+0.34	56.3
6349 B.A.C.	7.2	10	18 30 40.40	8	+2.007	-.001	55.7	51 13 2.0	4	-2.68	+0.07	55.2
.....	8.0	10	18 32 5.33	8	+2.022	...	55.6	51 35 45.9	5	-2.80	...	55.1
α Lyrae.....	1.0	...	18 32 11.93	8	+2.013	+0.017	55.6	51 20 40.2	8	-2.81	-0.28	55.9
6368 B.A.C.	7.5	3.5	18 35 47.11	3	+1.177	...	56.6	34 52 58.0	3	-3.12	-0.28	56.6
6369 B.A.C.	6.1	4	18 36 13.14	5	+3.692	+0.005	56.2	115 8 51.0	2	-3.16	+0.28	55.6
φ Sagittarii...	3.7	...	18 36 54.48	5	+3.748	+0.004	56.2	117 7 51.7	5	-3.22	-0.01	55.4
2811 Carrington.	8.0	4	18 38 37.82	3	-18.485	...	55.6	3 29 56.7	2	-3.36	...	55.7
6386 B.A.C.	7.0	3	18 39 33.99	2	+3.563	+0.007	56.6	110 25 20.4	3	-3.45	+0.15	56.6
110 Herculis...	4.0	...	18 39 38.23	2	+2.582	+0.004	56.6	69 35 6.0	3	-3.45	+0.35	55.6
ε ¹ Lyrae (1st).	4.6	...	18 39 42.07	1	+1.985	-.002	56.6	50 28 ...	...	-3.46	-0.04	...
ε ¹ Lyrae (2d).	6.3	...	18 39 42.23	1	+1.985	-.002	56.6	50 28 ...	...	-3.46	-0.04	...
ε ² Lyrae (1st).	4.9	...	18 39 44.28	1	+1.987	-.002	56.6	50 32 ...	...	-3.46	-0.09	...
ε ² Lyrae (2d).	5.2	...	18 39 44.65	1	+1.987	-.002	56.6	50 32 ...	...	-3.46	-0.09	...
R Scuti	Var.	2	18 40 0.64	2	+3.207	...	54.6	95 50 ...	...	-3.48	...	...
111 Herculis...	4.3	...	18 40 50.36	2	+2.643	+0.010	55.6	71 58 18.5	5	-3.56	-0.12	55.4
β Lyrae (1st).	Var.	...	18 44 54.65	8	+2.214	-.002	56.4	56 47 49.6	2	-3.91	+0.03	54.6
β Lyrae (2d) ..	7.1	3	18 44 56.61	3	+2.214	...	56.6	56 48 51.9	1	-3.91	...	56.6

Nos. 1116—1150.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.		
			h. m. s.		s.	s.		° ' "		"	"			
σ Sagittarii...	2.3	...	18 46 35.01	4	+	3.724	.000	56.4	116 28 0.6	3	—	4.05	+ 0.08	56.2
50 Draconis...	5.6	4	18 50 52.11	3	—	1.888	— .018	56.6	14 44 0.9	7	—	4.42	— 0.02	54.7
6480 B.A.C.	5.9	3	18 51 46.61	3	+	2.234	...	55.3	57 16 32.7	3	—	4.49	+ 0.10	56.0
ϵ Aquilæ	4.0	...	18 53 16.11	3	+	2.726	— .008	56.6	75 7 7.6	2	—	4.62	+ 0.10	56.6
ζ Sagittarii ...	3.3	...	18 53 42.12	3	+	3.825	— .005	55.6	120 4 35.4	2	—	4.66	+ 0.03	56.6
6490 B.A.C.	6.5	2.5	18 53 53.49	3	+	3.679	— .001	56.6	115 2 9.9	2	—	4.67	+ 0.30	56.6
16 Lyrae	5.0	...	18 57 28.72	1	+	1.696	+ .017	54.6	43 15 44.5	1	—	4.98	+ 0.06	56.0
τ Sagittarii ...	3.7	...	18 58 11.78	2	+	3.756	— .008	55.7	117 52 14.8	3	—	5.04	+ 0.26	54.6
ζ Aquilæ.....	3.0	...	18 58 58.54	5	+	2.758	— .006	55.8	76 20 31.1	4	—	5.11	+ 0.07	55.6
R Aquilæ.....	Var.	5	18 59 37.70	3	+	2.890	...	56.7	81 58 45.6	2	—	5.16	...	56.7
2882 Carrington.	6.6	4	19 0 5.86	4	—	18.209	...	56.4	3 28 19.7	3	—	5.20	...	55.8
6542 B.A.C.	6.5	4	19 0 48.18	2	+	2.496	...	55.7	65 57 47.6	3	—	5.26	— 0.22	54.7
6547 B.A.C.	5.9	4	19 1 4.41	3	+	2.374	+ .020	56.6	61 35 20.1	4	—	5.28	+ 0.05	56.6
17 Lyrae	6.1	4	19 2 7.89	5	+	2.258	+ .010	56.2	57 42 58.3	4	—	5.37	— 0.06	56.1
6562 B.A.C.	6.5	...	19 4 36.24	2	+	3.702	— .008	55.6	116 8 14.6	3	—	5.58	+ 0.16	54.7
6567 B.A.C.	7.5	7.5	19 5 24.52	3	+	2.288	...	56.3	58 35 29.5	5	—	5.65	— 0.15	55.5
6590 B.A.C.	6.4	6.5	19 11 1.04	5	+	3.432	— .014	56.4	105 46 37.7	6	—	6.12	+ 0.44	55.6
ω Aquilæ	6.1	3	19 11 14.68	2	+	2.816	+ .003	55.6	78 39 14.2	5	—	6.14	— 0.06	56.2
24 Aquilæ	6.8	6	19 11 41.22	3	+	3.070	+ .001	56.6	89 54 46.2	6	—	6.17	— 0.20	55.7
δ Draconis....	3.0	...	19 12 30.84	4	+	0.018	+ .020	56.1	22 35 6.2	5	—	6.24	— 0.07	56.0
59 Draconis...	5.6	2	19 14 15.89	2	—	2.138	+ .009	56.7	13 40 29.6	5	—	6.39	+ 0.14	56.1
χ^1 Sagittarii..	5.7	2	19 16 45.18	4	+	3.655	— .001	56.1	114 46 34.9	3	—	6.59	+ 0.03	56.6
τ Draconis....	5.0	...	19 18 13.50	3	—	1.073	— .028	56.6	16 54 20.9	10	—	6.71	— 0.08	55.0
31 Aquilæ b...	5.3	3	19 18 17.53	2	+	2.812	+ .049	55.6	78 21 9.2	3	—	6.72	— 0.69	54.7
δ Aquilæ.....	3.3	...	19 18 26.33	5	+	3.010	+ .014	55.8	87 9 39.9	3	—	6.73	— 0.10	56.6
6652 B.A.C.	6.8	3	19 19 16.18	2	+	2.614	— .010	55.7	70 0 5.1	3	—	6.80	...	54.7
6657 B.A.C.	6.7	2.5	19 19 38.20	2	+	2.495	— .012	56.6	65 20 15.5	3	—	6.83	+ 0.64	56.6
8 Vulpeculæ..	6.0	5	19 23 6.51	5	+	2.503	+ .001	56.0	65 31 2.9	7	—	7.12	+ 0.10	56.2
6683 B.A.C.	7.4	1.5	19 23 56.41	3	+	3.571	+ .025	56.6	111 48 33.0	3	—	7.18	+ 0.06	54.7
β Cygni (1st)	3.0	...	19 25 4.67	1	+	2.419	— .002	55.7	62 19 54.8	5	—	7.28	0.00	55.6
β Cygni (2d).	6.6	2	19 25 6.78	2	+	2.418	+ .003	55.6	62 19 36.1	4	—	7.28	— 0.04	56.6
ϵ^2 Cygni	4.0	...	19 26 10.48	2	+	1.513	.000	56.6	38 34 1.6	3	—	7.36	— 0.13	56.3
μ Aquilæ	4.7	...	19 27 15.08	1	+	2.918	+ .013	55.7	82 54 54.9	6	—	7.46	+ 0.14	55.6
52 Sagittarii λ^2	4.7	...	19 28 11.08	3	+	3.655	+ .002	56.2	115 11 19.6	7	—	7.53	— 0.02	55.8
42 Aquilæ	6.0	4	19 30 21.59	2	+	3.179	+ .010	56.6	94 57 24.4	3	—	7.71	+ 0.09	56.3

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
6723 B.A.C.	6.1	4	19 30 42.38	5	+ 1.552	+ .017	56.4	39 3 45.1	2	- 7.73	+ 0.10	56.4
53 Sagittarii ..	7.0	...	19 31 24.72	2	+ 3.614	+ .005	56.7	113 44 ...	...	- 7.79	- 0.11	...
σ Draconis ...	4.5	...	19 32 37.53	1	- 0.204	+ .096	56.6	20 34 37.4	8	- 7.89	+ 1.79	54.7
θ Cygni	4.7	...	19 32 41.18	5	+ 1.613	- .002	55.4	40 6 6.0	3	- 7.89	- 0.15	55.9
R Cygni	Var.	1	19 33 0	...	+ 1.614	...	...	40 6 41.3	1	- 7.93	...	54.7
2973 Carrington.	8.9	4	19 33 54.00	2	- 26.263	...	55.2	2 23 38.0	3	- 7.99	...	56.3
6741 B.A.C.	7.0	1	19 34 3.54	3	+ 1.664	+ .025	55.7	41 2 19.5	4	- 8.00	+ 0.13	55.1
6746 B.A.C.	5.9	2	19 35 34.27	3	+ 3.417	+ .003	56.6	105 47 29.5	3	- 8.12	+ 0.27	55.9
6750 B.A.C.	7.0	3	19 36 5.28	3	+ 2.672	+ .012	56.5	71 52 ...	...	- 8.17	- 0.03	...
16 Cygni c	6.5	2.5	19 38 5.62	5	+ 1.612	- .022	55.5	39 47 54.4	3	- 8.32	+ 0.16	56.6
16 Cygni (2d) ..	6.4	4	19 38 8.33	3	+ 1.612	- .016	56.6	39 48 22.1	2	- 8.33	+ 0.21	56.6
15 Cygni	5.1	4	19 39 13.59	1	+ 2.157	+ .010	56.5	52 58 54.8	3	- 8.42	- 0.08	54.7
γ Aquilæ	3.0	...	19 39 36.23	5	+ 2.852	+ .001	55.8	79 43 31.0	1	- 8.45	0.00	54.7
6773 B.A.C.	7.0	0.5	19 39 44.86	1	+ 3.544	- .009	56.6	111 17 56.8	3	- 8.46	+ 0.11	54.7
17 Cygni	5.3	...	19 41 6.76	2	+ 2.274	+ .002	54.7	56 35 44.9	2	- 8.56	+ 0.41	55.6
δ Sagittæ	4.0	...	19 41 8.85	1	+ 2.675	+ .010	56.6	71 48 29.5	3	- 8.57	- 0.05	54.7
6785 B.A.C.	6.4	4	19 41 18.93	1	+ 3.311	+ .010	56.7	101 12 56.2	4	- 8.58	- 0.01	56.6
2989 Carrington.	7.7	4	19 42 56.83	6	- 13.294	...	56.4	4 12 31.3	1	- 8.71	...	55.7
α Aquilæ	1.3	...	19 43 57.11	5	+ 2.892	+ .036	56.2	81 29 54.2	9	- 8.79	- 0.38	54.7
ϕ Aquilæ	6.0	0.5	19 44 19.28	2	+ 2.858	+ .017	56.6	79 55 54.4	1	- 8.82	+ 0.16	56.6
6806 B.A.C.	6.0	1	19 44 30.15	1	+ 2.122	+ .003	56.6	51 38 ...	...	- 8.83	+ 0.12	...
2990 Carrington.	8.8	4	19 44 42.81	5	- 13.214	...	56.3	4 13 ...	...	- 8.85	...	...
η Aquilæ	Var.	3	19 45 20.11	3	+ 3.059	+ .002	54.7	89 21 5.0	1	- 8.90	+ 0.04	56.7
19 Cygni	5.5	1	19 45 36.54	1	+ 2.124	+ .001	55.6	51 38 9.0	1	- 8.92	- 0.12	56.7
ω Sagittarii ...	5.0	...	19 47 15.57	1	+ 3.671	+ .013	56.6	116 40 1.6	4	- 9.05	- 0.08	55.1
58 Aquilæ	6.4	3	19 47 34.60	1	+ 3.074	+ .003	56.6	90 5 22.5	3	- 9.07	+ 0.10	54.7
59 Sagittarii b *	5.0	...	19 48 21.25	3	+ 3.693	- .003	56.6	117 32 14.4	4	- 9.13	+ 0.01	56.6
β Aquilæ	4.0	...	19 48 26.25	3	+ 2.946	+ .002	56.4	83 56 24.6	4	- 9.14	+ 0.47	54.7
11 Sagittæ	6.0	7	19 51 24.07	5	+ 2.724	+ .003	56.4	73 35 7.2	4	- 9.37	- 0.11	55.1
6855 B.A.C.	7.2	4	19 51 51.96	1	+ 2.731	+ .010	56.5	73 52 53.0	3	- 9.41	...	54.7
6367 B.A.C.	5.3	3	19 53 15.18	2	+ 1.153	+ .017	56.6	31 31 37.9	5	- 9.51	+ 0.02	55.5
62 Sagittarii c	5.0	...	19 54 2.73	8	+ 3.699	0.00	55.6	118 5 42.6	4	- 9.58	- 0.02	55.1
25 Cygni	5.9	3	19 54 47.02	2	+ 2.199	- .036	56.6	53 20 18.9	3	- 9.63	- 0.08	54.7
6878 B.A.C.	6.8	2	19 55 26.38	2	+ 3.569	- .011	56.6	112 59 8.6	4	- 9.68	+ 0.01	54.9
6880 B.A.C.	7.5	1	19 55 37.62	2	+ 3.403	- .002	56.7	105 48 ...	...	- 9.69	+ 0.11	...

Nos. 1186—1220.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
6896 B.A.C.	7.2	4	19 57 38.21	2	+ 2.722	— .001	55.7	73 16 12.8	3	— 9.85	+ 0.19	54.7
15 Sagittæ	6.0	5	19 57 48.86	3	+ 2.722	— .028	56.6	73 18 24.3	4	— 9.86	+ 0.32	55.2
7 Sagittæ.....	5.3	1	19 58 56.95	3	+ 2.659	+ .004	55.8	70 24 27.5	6	— 9.95	— 0.10	55.6
6907 B.A.C.	7.1	4	20 0 35.09	2	+ 3.391	— .001	56.6	105 25 49.3	3	— 10.07	+ 0.27	56.2
64 Aquilæ.....	6.7	2.5	20 0 48.18	1	+ 3.094	+ .011	55.7	91 4 42.5	3	— 10.09	+ 0.07	54.6
6911 B.A.C.	7.1	3.5	20 0 52.11	2	+ 3.285	— .007	55.7	100 27 54.1	3	— 10.09	+ 0.12	54.7
27 Cygni <i>b</i> ¹	5.9	2	20 1 9.79	2	+ 2.246	— .019	56.6	54 24 40.2	3	— 10.12	+ 0.41	56.7
6914 B.A.C.	7.5	2	20 1 22.22	2	+ 3.515	— .003	56.6	110 59 49.4	3	— 10.13	+ 0.28	54.7
6923 B.A.C.	7.0	1	20 2 18.51	1	+ 3.486	— .009	56.6	109 47 13.7	1	— 10.20	+ 0.20	55.6
ξ ² Capricorni.	6.0	...	20 4 40	..	+ 3.336	+ .016	...	103 1 28.9	3	— 10.38	+ 0.15	54.6
6941 B.A.C.	6.9	2	20 4 50	..	+ 2.639	— .001	...	69 16 46.1	3	— 10.39	— 0.17	54.7
6947 B.A.C.	6.0	...	20 6 30	..	+ 3.664	+ .093	...	117 26 48.4	3	— 10.52	+ 0.16	54.6
68 Draconis...	6.7	2	20 9 17.07	1	+ 0.977	+ .015	56.7	28 20 41.4	5	— 10.71	— 0.05	56.3
29 Cygni <i>b</i> ³	5.0	...	20 9 17.45	1	+ 2.239	+ .006	56.6	53 37 14.0	3	— 10.72	— 0.12	54.6
α ² Capricorni.	3.3	...	20 10 17.10	4	+ 3.331	+ .001	56.6	102 58 34.7	3	— 10.80	.000	54.8
3067 Carrington.	8.9	8	20 10 43.50	9	— 11.177	...	55.0	4 30 57.3	2	— 10.83	...	55.7
6980 B.A.C.	6.7	2	20 10 53.10	1	+ 1.107	+ .029	56.6	29 47 12.8	3	— 10.84	— 0.01	56.3
6986 B.A.C.	6.0	...	20 11 56.41	1	+ 2.133	+ .015	56.6	50 3 59.5	1	— 10.92	...	56.6
34 Cygni.....	Var.	...	20 12 37.66	3	+ 2.210	+ .001	54.7	52 24 3.0	2	— 10.97	— 0.03	54.7
3082 Carrington.	8.2	5	20 13 42.90	4	— 41.757	...	55.7	1 25 33.0	5	— 11.05	...	55.8
7006 B.A.C.	6.9	4	20 14 33.90	2	+ 2.242	— .015	56.7	53 18 23.0	3	— 11.11	...	54.6
7009 B.A.C.	7.3	3	20 15 36.33	2	+ 3.363	+ .013	56.7	104 42 8.6	3	— 11.19	+ 0.12	54.7
γ Cygni.....	2.7	...	20 17 12.24	3	+ 2.151	.000	56.6	50 11 21.7	7	— 11.30	— 0.02	56.3
π Capricorni *	5.0	...	20 19 18.27	3	+ 3.443	— .002	54.7	108 40 5.4	3	— 11.45	— 0.02	54.7
3212 Gr.	7.1	10	20 19 21.73	6	— 7.831	...	54.7	5 44 51.3	6	— 11.46	...	56.0
3094 Carrington.	7.4	4	20 20 45.64	6	— 10.352	...	55.3	4 39 ...	..	— 11.56	...	...
ρ Capricorni..	5.0	...	20 20 52.41	3	+ 3.433	— .006	56.3	108 16 25.6	4	— 11.57	+ 0.01	56.2
7044 B.A.C.	7.0	3.5	20 21 0.82	3	+ 3.435	+ .005	56.6	108 19 56.2	3	— 11.58	+ 0.13	54.6
72 Draconis...	8.5	2	20 21 8.03	1	+ 1.034	— .002	56.7	28 11 10.5	2	— 11.59	— 0.45	56.6
3106 Carrington.	9.2	6	20 21 11.08	5	— 37.364	...	56.1	1 32 45.0	2	— 11.59	...	56.2
69 Aquilæ.....	5.0	...	20 22 19.94	1	+ 3.136	+ .010	56.7	93 20 55.4	7	— 11.67	— 0.02	54.7
7069 B.A.C.	8.3	2	20 24 1.64	1	+ 3.523	+ .009	56.7	112 37 28.2	3	— 11.79	.000	54.7
7070 B.A.C.	8.7	2	20 24 3.79	1	+ 3.523	+ .019	56.6	112 37 53.5	3	— 11.79	.000	54.7
7079 B.A.C. (1)	7.7	1	20 24 30.91	1	+ 2.866	— .035	56.6	79 13 ...	..	— 11.83	.000	...
7079 B.A.C. (2)	7.3	1	20 24 31.78	1	+ 2.866	— .035	56.6	79 12 30.6	1	— 11.83	.000	56.7

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	
			h. m. s.		s.	s.		° ' "		"	"		
7077 B.A.C.	7.0	0.5	20 24 31.91	1	+	3.585	— .011	56.7	115 24 46.7	3	— 11.82	+ 0.12	54.6
7081 B.A.C.	7.7	1	20 25 19.88	2	+	3.523	— .019	54.7	112 42 11.6	3	— 11.88	+ 0.07	54.7
7090 B.A.C.	7.7	2	20 26 30	..	+	0.375	+ .022	...	21 41 57.0	3	— 11.97	— 0.07	56.5
3120 Carring.	7.5	10.5	20 28 30.62	8	—	8.307	...	54.8	5 21 6.9	5	— 12.11	...	55.8
3260 Gr.	7.5	6.5	20 29 22.79	6	—	7.204	...	54.7	5 54 21.1	1	— 12.17	...	54.7
26 Vulpeculæ.	7.0	2	20 30 8.31	1	+	2.568	+ .010	56.7	64 36 2.0	3	— 12.22	+ 0.01	54.6
3128 Carring.	7.0	11	20 30 15.74	9	—	8.305	...	55.0	5 19 18.8	5	— 12.23	...	55.8
24 Ceph. (Hev.)	Var.	5	20 31 1.88	2	—	43.532	...	56.4	1 17 58.9	3	— 12.28	...	55.3
1 Capricorni *	5.0	...	20 32 4.66	3	+	3.427	.000	56.3	108 38 ...	..	— 12.35	— 0.02	...
1 Aquarii	5.0	...	20 32 14.34	1	+	3.072	+ .012	56.7	90 0 9.9	4	— 12.36	+ 0.03	55.7
κ Delphini	5.0	...	20 32 19.91	1	+	2.894	+ .025	56.7	80 24 16.9	4	— 12.37	— 0.02	55.3
7150 B.A.C.	6.9	2	20 33 10	..	+	2.873	+ .023	...	79 14 44.7	3	— 12.43	...	54.7
S Capricorni..	Var.	3	20 33 43.54	2	+	3.444	...	56.7	109 33 16.0	1	— 12.47	...	56.7
3141 Carring.	8.6	1.5	20 34 56.77	2	—	11.193	...	55.9	4 11 ...	..	— 12.55	...	...
Σ. 2718 (1st) .	7.9	3	20 35 55.15	3	+	2.847	...	54.7	77 46 11.7	2	— 12.62	...	54.8
Σ. 2718 (2d) ..	8.2	3	20 35 55.84	2	+	2.847	...	56.6	77 46 12.4	1	— 12.62	...	54.7
α Cygni	1.7	...	20 36 39.58	5	+	2.043	— .002	55.9	45 13 8.4	5	— 12.67	0.00	54.2
51 Cygni	6.0	1	20 36 53.58	1	+	1.849	+ .010	56.7	40 9 42.2	1	— 12.68	+ 0.04	56.8
74 Draconis...	6.3	1	20 37 22.99	1	—	3.171	+ .021	56.7	9 24 4.7	1	— 12.72	— 0.20	56.7
ψ Capricorni..	4.3	...	20 37 48.22	1	+	3.571	— .007	55.7	115 46 17.0	3	— 12.74	+ 0.17	54.7
30 Vulpeculæ.	4.7	...	20 38 48.97	1	+	2.597	.000	56.7	65 13 41.5	3	— 12.81	+ 0.17	54.7
3160 Carring.	8.0	10	20 39 36.05	8	—	20.413	...	54.8	2 30 2.5	4	— 12.86	...	56.0
γ Delphini (1)	6.3	3	20 40 9.03	2	+	2.786	.000	55.7	74 22 41.3	4	— 12.90	+ 0.20	55.2
γ Delphini (2)	3.3	...	20 40 9.94	2	+	2.786	.000	54.7	74 22 40.4	6	— 12.90	+ 0.15	54.7
ε Cygni	2.7	...	20 40 32.90	4	+	2.396	+ .031	56.2	56 33 7.7	6	— 12.93	— 0.33	54.7
η Cephei	3.0	...	20 42 26.28	1	+	1.219	+ .014	56.7	28 42 15.0	1	— 13.06	— 0.87	56.8
15 Delphini...	6.6	3	20 42 57.52	1	+	2.856	+ .006	55.7	77 58 33.5	4	— 13.09	— 0.50	54.9
ω Capricorni..	4.3	...	20 43 27.81	2	+	3.597	— .003	56.6	117 26 24.3	2	— 13.12	+ 0.03	56.7
56 Cygni	5.4	2	20 45 6.61	3	+	2.117	+ .015	55.6	46 27 58.8	5	— 13.23	— 0.13	55.8
32 Vulpeculæ.	4.7	...	20 48 35.73	3	+	2.555	— .002	55.7	62 28 23.9	5	— 13.46	0.00	56.4
7262 B.A.C.	7.4	7	20 49 18.28	3	+	1.713	+ .019	56.7	36 1 8.6	6	— 13.51	...	55.9
7268 B.A.C.	6.1	6	20 51 6.17	3	+	2.024	...	54.7	43 7 1.4	3	— 13.62	— 0.22	54.7
18 Delphini...	5.8	1	20 51 41.24	1	+	2.894	— .002	55.7	79 41 55.4	4	— 13.66	+ 0.10	55.2
1 Equulei (1st)	5.4	4	20 52 4.72	1	+	3.008	— .006	55.7	86 14 29.4	6	— 13.68	+ 0.14	54.7
1 Equulei (2d)	7.5	1	20 52 5.51	1	+	3.008	— .006	56.7	86 14 26.9	1	— 13.68	+ 0.14	56.6

Nos. 1256—1290.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.			No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.			No. of Obs.	Precession.	Proper Motion	Mean Date.	
			h.	m.	s.					°	'	"					
10 Aquarii	7.0	1.5	20	53	8.81	2	+	3.174	+ .015	55.7	96	1	14.4	3	- 13.75	- 0.01	54.7
11 Aquarii	6.7	2	20	53	11.41	2	+	3.161	+ .005	56.7	95	16	9.3	3	- 13.75	+ 0.17	54.7
7290 B.A.C.	5.7	1	20	53	18.95	1	+	2.135	+ .016	55.7	46	4	19.8	2	- 13.76	...	54.8
7300 B.A.C.	7.8	2	20	55	4.40	2	+	3.535	+ .017	56.7	115	57	24.8	2	- 13.87	+ 0.13	56.7
3200 Carrington.	8.0	5	20	55	46.74	3	-	8.250	...	56.0	4	51	35.9	4	- 13.92	...	56.1
7320 B.A.C.	6.7	12	20	57	39.03	10	+	2.322	.000	55.8	51	53	39.6	6	- 14.03	+ 0.02	55.4
4 Equulei.....	6.3	1	20	58	30.40	2	+	2.982	- .011	55.7	84	35	34.9	3	- 14.09	+ 0.13	54.8
7325 B.A.C.	6.7	1	20	58	43.06	2	+	3.432	+ .004	56.6	110	44	15.6	3	- 14.10	+ 0.11	56.7
7334 B.A.C.	7.7	3	21	0	18.35	1	+	3.173	+ .024	55.7	96	8	8.6	3	- 14.20	- 0.13	54.7
61 Cygni (1st)	5.5	11	21	0	37.39	10	+	2.333	+ .339	55.9	51	56	12.2	5	- 14.22	- 3.22	54.7
61 Cygni (2d)	6.0	9	21	0	38.94	9	+	2.333	+ .345	55.8	51	56	18.2	4	- 14.22	- 3.00	54.7
27 Capricorni.	6.7	2	21	1	32.53	2	+	3.435	+ .012	56.6	111	6	58.8	3	- 14.28	+ 0.09	54.7
41030 Lalande	7.9	12	21	2	37.55	10	+	2.343	...	55.6	52	2	6.3	5	- 14.34	...	54.7
γ Equulei	4.7	...	21	3	31.93	2	+	2.915	+ .009	55.7	80	25	48.8	5	- 14.40	+ 0.17	56.6
ζ Cygni.....	3.0	...	21	6	58.71	10	+	2.550	- .003	56.1	60	20	43.6	5	- 14.61	+ 0.07	55.6
δ Equulei.....	4.7	...	21	7	39.65	3	+	2.920	+ .008	55.7	80	33	29.9	10	- 14.65	+ 0.28	55.5
7383 B.A.C.	7.2	4	21	8	56.79	3	+	2.295	+ .019	54.7	49	25	57.7	3	- 14.72	- 0.01	54.7
τ Cygni.....	4.0	...	21	9	12.31	2	+	2.378	+ .013	55.7	52	33	2.0	3	- 14.74	- 0.47	54.7
7387 B.A.C.	6.7	1	21	9	13.37	3	+	1.531	+ .018	56.7	30	28	44.9	1	- 14.74	+ 0.03	56.8
T Capricorni..	Var.	...	21	14	12.58	1	+	3.321	...	55.6	105	45	...	...	- 15.03	...	...
ι Capricorni *	4.3	...	21	14	26.83	2	+	3.350	.000	56.6	107	25	42.8	2	- 15.05	- 0.02	56.6
α Cephei	2.7	...	21	15	14.09	5	+	1.416	+ .021	56.3	28	0	24.0	6	- 15.09	- 0.01	56.1
1 Pegasi (1st)	9.6	3	21	15	34.84	3	+	2.765	...	56.7	70	48	...	...	- 15.12	...	...
1 Pegasi (2d).	4.3	...	21	15	36.80	1	+	2.765	+ .012	55.7	70	47	32.8	9	- 15.12	- 0.09	55.1
7426 B.A.C.	7.5	0.5	21	16	14.97	1	+	3.481	+ .030	55.7	115	1	9.8	3	- 15.15	+ 0.15	54.8
7438 B.A.C.	6.0	1	21	17	10.07	1	-	0.515	+ .063	56.7	13	35	...	...	- 15.20	- 0.02	...
7434 B.A.C.	7.9	2	21	17	40.80	1	+	3.493	+ .020	55.7	115	50	21.3	2	- 15.23	+ 0.02	56.2
19 Aquarii	6.0	2	21	17	41.52	2	+	3.230	+ .001	56.7	100	20	33.6	2	- 15.23	+ 0.17	54.8
ζ Capricorni *	4.0	...	21	18	40.20	5	+	3.440	- .002	55.4	113	0	56.3	5	- 15.29	- 0.02	56.1
36 Capricorni b	4.7	...	21	20	44.10	5	+	3.426	+ .013	56.1	112	24	52.0	3	- 15.40	- 0.04	54.7
35 Vulpeculæ.	6.1	4	21	21	29.94	4	+	2.637	+ .012	56.2	62	59	56.6	4	- 15.45	- 0.07	54.7
7468 B.A.C.	6.7	1	21	22	8.09	2	+	1.972	+ .042	56.7	37	42	29.6	3	- 15.48	+ 0.01	56.7
β Aquarii	3.0	...	21	24	11.25	3	+	3.163	- .001	54.6	96	11	6.7	3	- 15.60	0.00	54.8
71 Cygni γ.....	5.0	...	21	24	16.94	3	+	2.205	- .002	56.1	44	4	31.3	3	- 15.60	- 0.11	56.8
7484 B.A.C.	7.0	2	21	24	37.87	1	-	4.476	- .005	56.7	6	20	11.4	1	- 15.62	+ 0.29	56.7

Star.	Magnitudes	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
3270 Carring..	8.9	5	21 25 21.85	6	- 12.690	...	54.4	3 2 0.8	2	- 15.66	...	55.7
7485 B.A.C.....	7.5	3	21 25 55.88	4	+ 3.324	-.002	56.2	106 48 52.4	2	- 15.69	+ 0.32	55.7
β Cephei (1st)	8.5	1	21 26 47.87	1	+ 0.803	.000	55.7	20 3 17.9	1	- 15.74	+ 0.04	55.8
3548 Gr.	7.5	4	21 26 49.59	6	- 10.285	+ .072	54.4	3 33 ...	...	- 15.74	...	...
β Cephei (2d)	3.0	...	21 26 50.25	4	+ 0.803	.000	56.5	20 3 13.1	10	- 15.74	+ 0.04	55.0
7494 B.A.C.....	7.1	2	21 27 0.01	1	+ 1.705	+ .028	56.7	31 12 2.5	2	- 15.75	- 0.10	56.8
8 Piscis Austr.	5.7	...	21 28 3.51	2	+ 3.487	+ .011	55.7	116 47 36.3	5	- 15.81	+ 0.04	55.5
7510 B.A.C.....	5.7	1	21 28 50.37	1	- 1.534	+ .119	54.7	10 5 10.7	4	- 15.85	- 0.10	54.8
72 Cygni	5.5	1	21 29 3.51	1	+ 2.435	+ .013	56.7	52 5 29.7	1	- 15.86	- 0.12	56.7
ϵ Capricorni *	4.7	...	21 29 14.24	3	+ 3.371	-.002	54.6	110 5 31.3	1	- 15.87	0.00	54.8
7518 B.A.C.....	6.7	1	21 30 44.91	1	+ 2.987	+ .018	56.7	84 0 ...	...	- 15.95	+ 0.11	...
5 Pegasi	6.0	...	21 31 12.39	1	+ 2.798	+ .011	56.8	71 18 36.0	1	- 15.98	- 0.09	55.7
γ Capricorni ..	3.7	...	21 32 19.69	2	+ 3.322	+ .013	55.7	107 17 34.8	4	- 16.04	+ 0.03	55.3
24 Aquarii	6.5	0.5	21 32 18.11	1	+ 3.081	+ .016	56.8	90 40 55.8	2	- 16.04	+ 0.05	55.6
7533 B.A.C.....	7.3	1	21 33 27.09	1	+ 1.592	+ .024	56.7	28 19 48.6	2	- 16.09	...	56.7
42 Capricorni.	5.0	...	21 33 55.89	2	+ 3.280	-.007	56.7	104 40 11.2	3	- 16.12	+ 0.26	54.7
41 Capricorni.	5.0	...	21 34 2.00	1	+ 3.424	+ .010	55.7	113 53 39.1	3	- 16.12	+ 0.05	54.7
7553 B.A.C.....	6.3	1	21 35 42.52	1	+ 2.930	+ .010	56.7	79 48 43.0	1	- 16.21	+ 0.04	56.7
45 Capricorni.	6.5	2	21 36 22.12	2	+ 3.288	-.001	55.7	105 23 20.2	2	- 16.24	+ 0.18	55.7
7564 B.A.C.....	6.7	1	21 37 10	...	+ 0.846	+ .020	...	19 19 20.4	1	- 16.29	- 0.06	56.2
ϵ Pegasi	2.3	...	21 37 18.64	5	+ 2.945	+ .003	56.0	80 45 54.4	4	- 16.29	0.00	56.7
7562 B.A.C.....	7.3	1	21 37 27.23	1	+ 3.205	+ .011	56.7	99 41 ...	...	- 16.30	+ 0.17	...
μ Cygni (1st).	4.0	...	21 37 52.81	1	+ 2.656	+ .016	56.8	61 53 15.9	1	- 16.32	+ 0.26	56.8
μ Cygni (2d).	5.0	...	21 37 55	...	+ 2.656	+ .016	...	61 53 17.7	1	- 16.32	+ 0.26	56.8
μ Cephei	Var.	...	21 39 13.38	2	+ 1.832	+ .001	55.7	31 51 37.8	1	- 16.39	- 0.01	55.7
δ Capricorni ..	3.0	...	21 39 18.60	5	+ 3.304	+ .014	55.5	106 45 37.3	5	- 16.40	+ 0.28	55.1
7584 B.A.C.	6.9	2	21 39 35.78	1	+ 2.715	+ .005	55.7	65 3 37.5	3	- 16.41	+ 0.11	54.0
11 Cephei	5.0	...	21 39 50	...	+ 0.883	+ .028	...	19 19 58.8	7	- 16.42	- 0.08	54.8
7586 B.A.C.	7.0	1	21 40 1.86	1	+ 2.715	+ .015	56.7	65 5 1.1	1	- 16.43	+ 0.10	56.8
7590 B.A.C.	7.5	0.5	21 40 25.12	1	+ 2.844	+ .012	56.8	73 27 ...	...	- 16.45	...	...
7608 B.A.C.	6.7	4	21 43 55.06	5	+ 3.334	+ .004	56.1	109 16 25.0	4	- 16.63	+ 0.17	56.2
μ Capricorni .	5.0	...	21 45 39.62	3	+ 3.259	+ .021	55.4	104 12 32.7	3	- 16.71	- 0.02	55.7
16 Pegasi	5.3	...	21 46 41.64	1	+ 2.725	+ .006	56.7	64 43 55.2	3	- 16.77	+ 0.02	56.7
7628 B.A.C.	6.3	4	21 46 51.51	5	+ 3.135	+ .001	56.6	94 55 53.3	3	- 16.77	+ 0.29	54.8
7636 B.A.C.	7.3	1	21 48 24.08	1	+ 2.014	.000	54.9	34 26 49.6	5	- 16.84	+ 0.23	56.2

Nos. 1326-1360.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	
			h. m. s.		s.	s.		° ' "		"	"		
7642 B.A.C.	7.0	4	21 50 1.25	4	+	2.109	+ .037	56.1	36 43 47.5	3	- 16.92	- 0.07	56.6
7650 B.A.C.	6.9	7.5	21 50 52.84	5	+	3.148	+ .002	56.3	96 5 12.2	7	- 16.96	+ 0.13	55.6
20 Pegasi.....	6.0	1	21 54 16.23	2	+	2.918	+ .011	56.8	77 32 55.9	4	- 17.11	0.00	56.8
7668 B.A.C.	7.0	0.5	21 54 41.90	1	+	2.002	+ .019	56.8	33 0 39.1	1	- 17.13	- 0.02	56.7
7676 B.A.C.	6.4	2	21 56 43.05	1	+	2.189	+ .019	54.7	37 47 29.3	2	- 17.22	0.00	56.8
16 Cephei.....	5.5	1	21 57 13.89	2	+	0.905	- .023	55.8	17 29 10.3	4	- 17.25	+ 0.19	56.0
α Aquarii.....	3.0	...	21 58 35.51	5	+	3.084	- .003	56.1	90 59 55.0	2	- 17.31	+ 0.02	55.3
ν Pegasi.....	5.0	...	21 58 37.12	2	+	3.020	+ .012	55.8	85 37 26.5	5	- 17.31	- 0.09	54.7
ι Aquarii.....*	4.7	...	21 58 52.41	5	+	3.247	- .001	55.5	104 32 50.6	4	- 17.32	+ 0.07	55.2
15 Cephei.....	6.8	2	21 59 20.39	2	+	1.948	+ .016	56.8	30 51 50.2	1	- 17.34	0.00	56.3
18 Cephei.....	5.7	0.5	21 59 41.34	1	+	1.787	- .016	56.8	27 33 39.7	3	- 17.36	...	56.4
ξ Cephei (1st)	6.3	1	21 59 43.38	1	+	1.702	+ .037	54.7	26 3 8.5	1	- 17.36	- 0.08	56.7
ξ Cephei (2d)	4.7	...	21 59 44.26	1	+	1.702	+ .037	56.8	26 3 ...	...	- 17.36	- 0.08	...
7705 B.A.C.	5.9	4	22 0 21.94	5	+	2.420	- .021	55.2	45 39 55.6	2	- 17.38	+ 0.10	56.7
ι Pegasi.....	4.0	...	22 0 29.70	1	+	2.766	+ .024	56.7	65 20 13.9	2	- 17.39	- 0.05	54.8
19 Cephei.....	5.5	1	22 0 50.43	1	+	1.843	+ .027	56.8	28 25 ...	...	- 17.41	+ 0.04	...
7715 B.A.C.	6.0	...	22 2 1.05	1	+	3.437	+ .019	56.6	118 58 44.6	1	- 17.46	- 0.29	56.8
7720 B.A.C.	7.0	1	22 3 4 06	1	+	3.124	+ .007	56.7	94 34 42.2	1	- 17.50	+ 0.20	56.8
θ Pegasi.....	3.3	...	22 3 8.21	3	+	3.009	+ .021	55.8	84 29 21.3	5	- 17.50	- 0.04	55.9
7726 B.A.C.	6.7	1	22 3 15.68	2	+	3.128	+ .001	56.8	94 57 ...	...	- 17.51	+ 0.21	...
7736 B.A.C. (1)	7.3	1	22 3 51.95	1	+	2.009	+ .017	55.8	31 23 30.5	1	- 17.54	- 0.01	55.8
7736 B.A.C. (2)	7.3	1	22 3 54.00	1	+	2.009	+ .017	55.8	31 23 ...	...	- 17.54	- 0.01	...
7738 B.A.C.	7.3	1	22 4 14.58	1	+	2.030	+ .018	56.7	31 50 2.3	2	- 17.55	- 0.08	55.7
7740 B.A.C.	7.3	1	22 4 49.04	1	+	3.206	+ .021	55.6	101 45 18.7	3	- 17.57	...	54.8
7744 B.A.C.	7.3	2	22 5 26.52	1	+	3.132	- .001	56.6	95 24 34.0	2	- 17.60	+ 0.15	56.8
7745 B.A.C.	6.0	...	22 5 52.36	1	+	3.381	+ .017	56.8	115 54 ...	...	- 17.62	+ 0.12	...
λ Piscis Austr.	5.0	...	22 6 22.40	2	+	3.417	+ .007	55.8	118 27 30.5	3	- 17.64	- 0.82	54.7
7753 B.A.C.	6.0	3.5	22 6 36.61	1	+	2.645	+ .017	56.7	56 5 3.2	3	- 17.65	+ 0.10	54.8
7754 B.A.C.	5.9	3	22 6 45.64	1	+	2.127	+ .023	54.7	33 51 22.0	3	- 17.66	- 0.16	56.4
7760 B.A.C. (2)	6.5	...	22 7 26.45	1	+	1.391	+ .038	56.8	20 33 32.3	1	- 17.69	- 0.08	56.2
7761 B.A.C. .	5.0	...	22 7 30	..	+	1.197	+ .025	...	18 34 40.6	2	- 17.69	+ 0.01	56.8
θ Aquarii.....	4.3	...	22 9 26.60	6	+	3.164	+ .006	55.4	98 28 45.2	2	- 17.77	+ 0.03	54.8
ε Cephei.....	4.7	...	22 9 53.28	2	+	2.143	+ .055	55.2	33 39 14.1	3	- 17.78	- 0.02	56.6
7782 B.A.C.	6.3	6	22 11 23.66	5	+	2.149	+ .027	56.3	33 28 38.4	3	- 17.85	0.00	56.8
γ Aquarii.....	3.7	...	22 14 25.46	7	+	3.094	+ .007	55.6	92 5 28.3	6	- 17.97	- 0.02	55.6

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.		s.	s.		° ' "		"	"	
49 Aquarii	6.0	1	22 15 42.48	2	+ 3.352	+ .011	56.8	115 28 7.0	4	- 18.01	+ 0.01	55.3
33 Pegasi.....	6.8	4	22 16 55.32	1	+ 2.859	+ .027	55.8	69 51 27.5	5	- 18.06	+ 0.02	55.5
β Lacertæ	4.3	...	22 18 3.60	10	+ 2.348	+ .001	56.1	38 28 17.7	5	- 18.10	+ 0.21	56.2
53 Aquarii (1)	7.0	1	22 18 57.90	3	+ 3.251	+ .020	56.4	107 27 5.8	3	- 18.14	- 0.05	54.8
53 Aquarii (2)	6.8	3	22 18 58.44	4	+ 3.251	+ .011	55.3	107 27 10.6	3	- 18.14	- 0.01	54.8
34 Pegasi.....	6.2	3	22 19 29.81	2	+ 3.035	+ .021	56.8	86 19 11.4	2	- 18.16	- 0.05	56.8
35 Pegasi.....	5.0	1	22 20 46.18	1	+ 3.033	+ .009	56.7	86 0 20.0	1	- 18.21	+ 0.29	54.8
ζ Aquarii (S.)	4.7	1	22 21 37.33	1	+ 3.079	+ .009	56.8	90 44 10.9	1	- 18.24	- 0.03	56.8
ζ Aqu. (centre)	3.3	...	22 21 ...	..	+ 3.079	+ .009	...	90 44 9.3	1	- 18.24	- 0.03	55.7
ζ Aquarii (N.)	5.0	1	22 21 37.45	1	+ 3.079	+ .009	56.8	90 44 ...	..	- 18.24	- 0.03	...
36 Pegasi.....	6.5	0.5	22 22 8.89	1	+ 2.990	+ .010	56.8	81 35 5.0	2	- 18.25	+ 0.01	56.8
7835 B.A.C. ...	6.5	1	22 22 32.35	1	+ 3.206	+ .011	56.8	103 38 ...	..	- 18.27	...	...
37 Pegasi.....	6.3	1	22 22 53.21	1	+ 3.036	- .001	54.9	86 17 ...	..	- 18.28	+ 0.13	...
σ Aquarii ... *	4.7	...	22 23 14.18	2	+ 3.182	- .004	55.7	101 23 35.6	4	- 18.30	- 0.05	55.2
38 Pegasi.....	5.7	...	22 23 40	..	+ 2.733	+ .008	...	58 8 32.4	1	- 18.31	- 0.11	56.8
5 Lacertæ	5.0	...	22 23 42.14	5	+ 2.488	+ .018	55.5	43 0 30.1	1	- 18.31	- 0.01	56.8
3820 Gr.	5.5	1	22 23 53.29	3	- 3.696	+ .048	55.8	4 35 52.1	1	- 18.32	- 0.05	56.3
δ Cephei (1st)	7.5	1	22 23 58	..	+ 2.212	+ .004	...	32 18 41.5	2	- 18.32	- 0.01	54.8
δ Cephei (2d)	Var.	2	22 23 58.73	1	+ 2.212	+ .002	55.6	32 18 3.2	3	- 18.32	+ 0.02	54.8
3824 Gr.	6.8	6	22 24 23.11	6	- 3.836	+ .031	56.5	4 29 ...	..	- 18.34	- 0.02	...
α Lacertæ	4.0	...	22 25 31.71	3	+ 2.444	+ .015	56.8	40 26 10.6	1	- 18.38	0.00	56.8
39 Pegasi.....	7.0	4	22 25 49.72	2	+ 2.883	+ .015	56.8	70 29 23.5	3	- 18.39	- 0.02	54.7
ν Aquarii.....	4.5	1	22 27 2.29	2	+ 3.279	+ .017	56.8	111 25 26.6	3	- 18.43	+ 0.10	56.8
7865 B.A.C. ...	7.2	3	22 27 26.44	1	+ 3.073	+ .003	56.7	90 7 24.3	2	- 18.44	+ 0.26	56.8
η Aquarii.....	3.7	...	22 28 9.85	1	+ 3.080	+ .003	55.7	90 50 16.0	3	- 18.47	+ 0.06	56.1
7876 B.A.C. ...	5.7	1	22 28 59.58	1	+ 1.711	+ .025	56.8	20 48 39.3	2	- 18.49	- 0.23	56.7
3458 Carrington	7.1	8	22 29 0.28	9	- 2.151	...	54.9	5 39 ...	..	- 18.50	...	...
7878 B.A.C. ...	6.0	1	22 29 19.80	1	+ 1.682	+ .030	56.8	20 20 52.1	1	- 18.51	- 0.11	56.3
θ Lacertæ (1st)	7.3	2	22 29 38.53	1	+ 2.657	- .001	56.8	51 5 44.1	2	- 18.52	+ 0.27	56.8
θ Lacertæ (2d)	6.5	...	22 29 38.95	1	+ 2.657	- .002	56.8	51 6 ...	..	- 18.52	+ 0.02	...
7881 B.A.C. ...	5.7	0.5	22 29 48.39	1	+ 1.088	+ .030	56.8	14 29 41.7	2	- 18.52	- 0.11	56.8
3466 Carrington	7.4	6	22 30 7.23	6	- 8.051	...	56.3	2 37 49.1	1	- 18.53	...	56.2
κ Aquarii.....	5.0	...	22 30 30.13	1	+ 3.116	- .007	55.8	94 56 57.7	2	- 18.54	+ 0.11	54.8
7891 B.A.C. ...	6.5	...	22 31 56.20	2	+ 3.350	- .001	56.8	119 3 3.3	3	- 18.59	- 0.62	54.8
31 Cephei	5.5	1	22 32 18.32	1	+ 1.447	+ .043	56.8	17 5 0.9	3	- 18.60	- 0.04	56.6

Nos. 1396-1430.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	Mean N.P.D. 1860.	No. of Obs.	Preces- sion.	Proper Motion	Mean Date.	
			h. m. s.		s.	s.		° ' "		"	"		
11 Lacertæ ...	5.0	...	22 34 22.87	5	+	2.608	+ .010	56.2	46 27 12.8	2	- 18.67	- 0.02	56.8
ζ Pegasi	3.3	...	22 34 28.81	5	+	2.985	+ .001	56.0	79 53 53.4	2	- 18.68	0.00	56.2
η Pegasi	3.0	...	22 36 26.67	3	+	2.802	.000	56.8	60 30 34.8	8	- 18.74	+ 0.04	55.1
45 Pegasi	6.4	3	22 38 39.66	4	+	2.916	+ .001	55.6	71 22 11.3	3	- 18.81	- 0.10	54.7
ξ Pegasi	4.7	...	22 39 41.98	5	+	2.979	+ .015	56.6	78 32 38.4	4	- 18.84	+ 0.43	55.0
68 Aquarii <i>g</i> ² .	6.0	0.5	22 40 1.96	1	+	3.242	- .006	55.8	110 20 33.4	3	- 18.85	+ 0.20	56.1
7950 B.A.C. ...	7.0	3	22 40 14.02	2	+	2.608	+ .019	54.7	44 31 12.1	2	- 18.85	+ 0.07	56.8
7951 B.A.C. (1)	8.2	2	22 40 36.93	2	+	3.112	- .009	56.8	94 57 ...	..	- 18.86	+ 0.30	...
7951 B.A.C. (C.)	7.0	...	22 40 ...	..	+	3.112	- .009	...	94 57 15.0	1	- 18.86	+ 0.30	56.7
7951 B.A.C. (2)	7.3	1	22 40 36.99	1	+	3.112	- .009	56.7	94 57 ...	..	- 18.86	+ 0.30	...
τ ² Aquarii ...*	4.0	...	22 42 10.70	1	+	3.186	- .004	56.9	104 19 51.8	1	- 18.91	+ 0.02	56.9
ι Cephei	3.7	...	22 44 42.30	3	+	2.127	- .012	56.8	24 32 7.6	7	- 18.98	+ 0.14	56.5
σ Pegasi	5.0	...	22 45 18.33	1	+	3.003	+ .041	55.8	80 54 29.8	3	- 19.00	- 0.06	54.7
15 Lacertæ ...	6.0	2	22 45 43.49	3	+	2.681	+ .015	56.8	47 25 50.1	3	- 19.01	- 0.01	56.8
δ Aquarii	3.0	...	22 47 13.11	5	+	3.196	- .007	55.6	106 33 51.7	5	- 19.05	0.00	55.5
77 Aquarii	6.3	2	22 47 20.91	2	+	3.200	- .017	56.8	107 0 46.6	3	- 19.06	+ 0.07	55.4
Fomalhaut ...	1.3	...	22 49 54.45	3	+	3.308	+ .022	55.4	120 21 46.8	6	- 19.13	+ 0.18	55.7
51 Pegasi	6.4	2	22 50 35.55	2	+	2.927	+ .019	56.8	69 58 50.6	2	- 19.14	- 0.07	56.3
8002 B.A.C. ...	6.5	0.5	22 51 56.04	2	+	3.300	+ .019	56.8	120 13 ...	..	- 19.18	+ 0.14	...
8004 B.A.C. ...	6.5	2	22 52 13.44	2	+	3.168	+ .018	56.8	103 49 13.7	1	- 19.19	- 0.02	56.8
2 Piscium	6.0	1	22 52 17.02	1	+	3.071	+ .008	56.7	89 47 2.0	2	- 19.19	+ 0.12	56.8
8026 B.A.C. ...	5.3	2	22 55 23.41	2	-	0.242	+ .069	56.8	6 24 11.8	2	- 19.26	- 0.05	56.8
β Pegasi	Var.	...	22 56 59.52	1	+	2.884	+ .014	56.8	62 40 31.5	3	- 19.30	+ 0.02	56.8
α Pegasi	2.0	...	22 57 47.28	2	+	2.980	+ .003	56.8	75 32 49.2	5	- 19.52	- 0.15	54.7
83 Aquarii <i>h</i> ¹ .	6.5	1	22 57 51.74	1	+	3.125	+ .013	56.8	98 27 ...	..	- 19.32	- 0.06	...
3 Andromedæ	4.0	...	22 57 54.28	1	+	2.656	+ .023	54.8	40 43 ...	..	- 19.32	- 0.12	...
87 Aquarii <i>h</i> ⁴ .	8.0	1	22 59 54.86	1	+	3.123	+ .010	56.8	98 26 54.0	1	- 19.37	- 0.04	56.8
5 Andromedæ	6.5	1	23 1 24.25	1	+	2.689	+ .018	56.8	41 27 59.1	4	- 19.40	- 0.13	56.6
5 Piscium A ..	5.5	1	23 1 30.75	2	+	3.064	+ .011	56.8	88 38 1.3	2	- 19.41	- 0.15	54.9
8064 B.A.C. ...	7.0	1.5	23 2 10.48	1	+	3.256	+ .018	56.8	118 50 47.9	4	- 19.42	0.00	54.8
8073 B.A.C. ...	7.3	0.5	23 3 24.43	1	+	3.111	- .024	55.8	96 43 9.0	3	- 19.45	+ 0.02	54.8
6 Andromedæ	6.5	2	23 3 59.51	1	+	2.772	- .018	56.8	47 12 24.9	3	- 19.46	+ 0.14	55.5
60 Pegasi	6.5	4	23 5 1.71	1	+	2.916	- .013	55.8	63 54 29.1	6	- 19.48	+ 0.08	55.8
8083 B.A.C. ...	5.7	2	23 6 33.33	2	+	2.606	+ .201	56.9	33 36 16.0	3	- 19.51	- 0.28	56.4
φ Aquarii	4.3	...	23 7 4.10	1	+	3.109	+ .001	55.8	96 48 10.0	3	- 19.52	+ 0.19	54.8

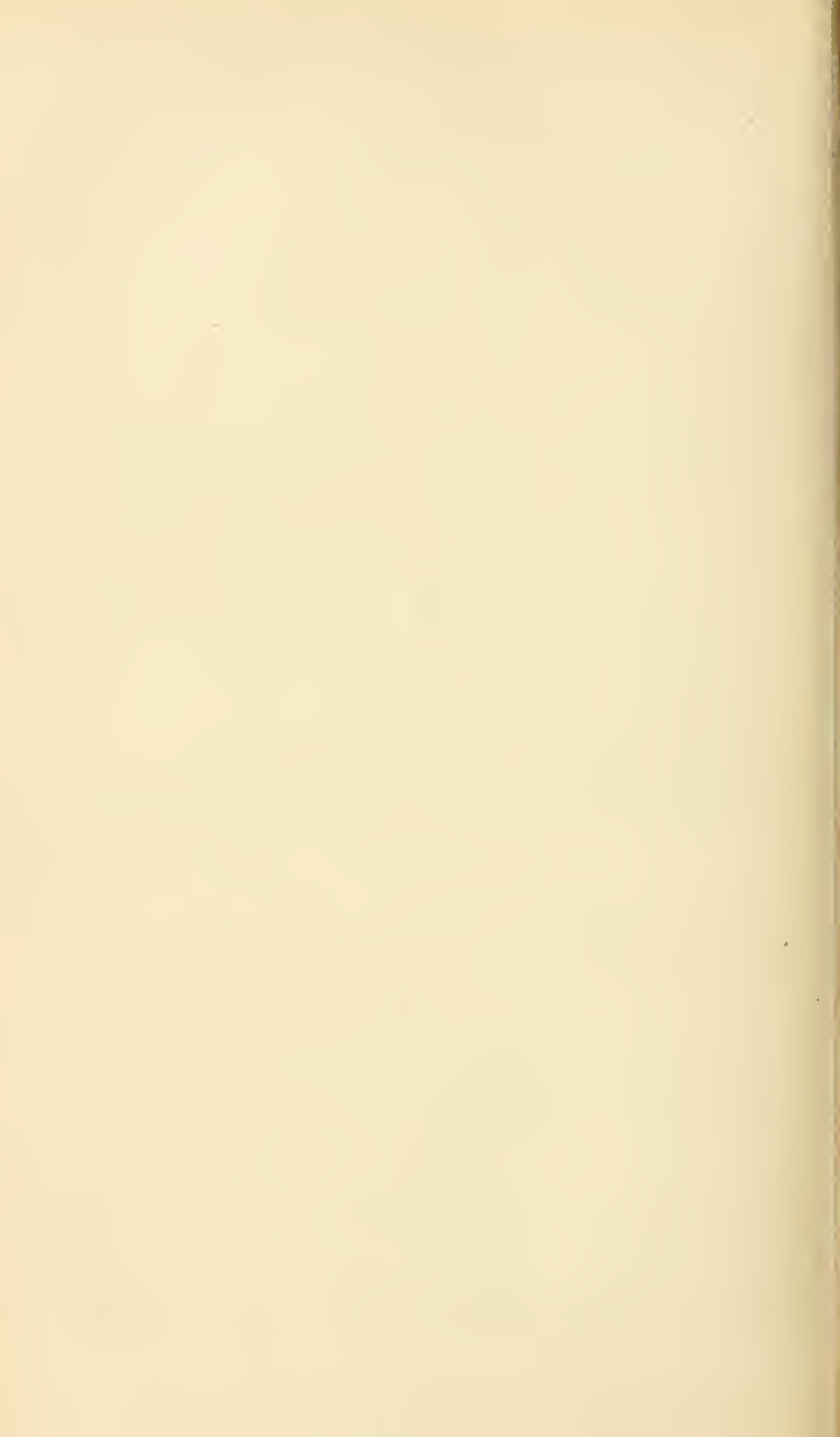
Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.			No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.			Precession.	Proper Motion	Mean Date.
			h.	m.	s.					°	'	"			
ψ^1 Aquarii	4.7	...	23	8	33.41	2	+	3.123	+ .023	56.8	99	50	59.4	5	- 19.55 + 0.02 55.6
γ Piscium	4.0	...	23	9	54.51	1	+	3.059	+ .047	55.8	87	28	57.1	2	- 19.58 + 0.01 54.8
8107 B.A.C.	6.3	1	23	10	20.10	1	+	2.698	+ .002	56.8	37	32	26.7	2	- 19.59 + 0.28 56.5
ψ^2 Aquarii ... *	4.7	...	23	10	37.55	2	+	3.122	+ .006	55.3	99	57	...	...	- 19.59 + 0.02 ...
94 Aquarii (1)	8.2	3	23	11	44.56	2	+	3.143	...	56.9	104	13	...	...	- 19.61
94 Aquarii (2)	6.3	2	23	11	45	...	+	3.143	+ .021	...	104	13	14.4	2	- 19.61 + 0.10 56.8
96 Aquarii	6.0	...	23	12	10	...	+	3.101	+ .011	...	99	53	21.1	3	- 19.62 + 0.01 54.8
α Cephei	5.0	...	23	12	53.55	1	+	2.418	+ .019	54.8	22	39	15.4	3	- 19.63 - 0.02 55.3
8126 B.A.C.	6.3	...	23	13	10	...	+	2.775	+ .019	...	42	23	7.6	1	- 19.64 - 0.04 56.9
12 Andromedæ	5.7	1	23	14	8.17	1	+	2.869	+ .015	55.8	52	34	53.1	4	- 19.66 + 0.05 55.3
8147 B.A.C. ...	6.9	3.5	23	15	47.47	3	+	2.980	+ .025	56.9	70	12	...	1	- 19.68
8156 B.A.C. ...	7.5	1	23	16	55.19	1	+	2.918	+ .034	56.8	58	14	16.4	1	- 19.70 + 0.03 56.8
67 Pegasi	6.0	3	23	18	0.07	2	+	2.922	+ .011	56.8	58	23	1.6	2	- 19.72 - 0.05 56.8
ν Pegasi	4.7	...	23	18	23.84	1	+	2.971	+ .013	55.7	67	21	58.0	2	- 19.73 - 0.03 56.3
3594 Carrington.	9.1	5.5	23	19	4.00	6	+	0.190	...	54.8	4	42	39.5	2	- 19.74 ... 56.5
κ Piscium	4.7	...	23	19	45.30	2	+	3.070	+ .005	55.8	89	30	38.2	3	- 19.75 + 0.12 54.8
8184 B.A.C.	7.1	5	23	22	17.85	3	+	3.092	+ .003	56.8	95	17	42.5	3	- 19.79 + 0.34 56.8
3608 Carrington.	6.8	11	23	24	12.29	6	+	0.341	...	56.8	4	21	12.6	4	- 19.81 ... 56.0
8193 B.A.C.	7.0	2	23	24	17.55	2	+	3.090	- .001	56.8	94	51	9.5	3	- 19.81 + 0.33 54.8
14 Andromedæ	6.0	1	23	24	24.90	2	+	2.907	+ .026	56.4	51	31	56.8	3	- 19.81 + 0.05 56.8
3615 Carrington.	7.6	6	23	25	51.77	7	+	0.691	...	54.9	4	45	45.5	1	- 19.83 ... 56.3
4101 Gr.	5.5	...	23	27	50	...	-	0.017	+ .048	...	3	27	56.7	2	- 19.86 - 0.02 56.8
3626 Carrington.	7.4	2	23	29	50	...	+	0.887	...	...	4	35	45.5	2	- 19.88 ... 54.9
8221 B.A.C.	6.3	2	23	30	23.95	2	+	3.114	+ .010	56.8	103	50	8.5	1	- 19.89 - 0.02 56.8
74 Pegasi	7.0	2	23	30	34.51	2	+	3.023	+ .011	56.8	73	57	...	...	- 19.89 - 0.02 ...
λ Andromedæ	4.0	...	23	30	43.19	3	+	2.898	+ .017	56.8	44	18	1.0	1	- 19.89 + 0.43 56.9
ϵ Piscium	4.3	...	23	32	45.08	5	+	3.058	+ .025	56.5	85	7	55.6	5	- 19.91 + 0.45 56.0
γ Cephei	3.3	...	23	33	37.65	2	+	2.415	- .020	56.8	13	8	58.3	6	- 19.92 - 0.15 56.2
λ Piscium	5.0	...	23	34	54.19	2	+	3.069	- .011	56.8	88	59	26.1	4	- 19.94 + 0.17 55.3
ω^2 Aquarii	6.0	1.	23	35	27.68	2	+	3.111	+ .010	56.8	105	19	8.6	2	- 19.94 - 0.04 56.9
78 Pegasi	5.0	...	23	36	57.29	2	+	2.999	+ .010	56.8	61	24	49.1	3	- 19.95 - 0.01 56.2
3647 Carrington.	7.4	5	23	38	17.67	7	+	1.710	...	54.9	5	18	...	...	- 19.97
3653 Carrington.	9.5	8	23	39	51.80	8	+	1.843	...	55.2	5	27	12.2	2	- 19.98 ... 54.8
20 Piscium μ *	6.0	1	23	40	44.69	2	+	3.079	+ .002	56.8	93	32	22.7	2	- 19.99 + 0.01 56.8
8288 B.A.C.	6.0	...	23	43	20.02	2	+	3.098	+ .014	55.4	105	10	45.5	1	- 20.00 + 0.20 55.8

Nos. 1466-1480.

Star.	Magnitudes.	Estimates of Magnitude.	Mean R.A. 1860.		No. of Obs.	Precession.	Proper Motion	Mean Date.	Mean N.P.D. 1860.			No. of Obs.	Precession.	Proper Motion	Mean Date.
			h. m. s.	s.		s.	s.		° ' "	"	"		"	"	"
8289 B.A.C.....	6.7	3	23 43 23.59	3	+	2.954	+.028	56.8	39 9 20.8	2	-	20.01	+0.04	56.8	
8298 B.A.C.....	7.2	3	23 45 16.79	2	+	2.705	...	56.8	13 10 34.1	5	-	20.01	+0.11	56.7	
8314 B.A.C.....	6.2	1.5	23 48 3.95	1	+	2.835	+.027	55.7	16 22 7.4	5	-	20.03	-0.11	55.5	
1 Ceti	7.0	1	23 51 9.07	2	+	3.087	+.013	56.9	106 37 37.2	1	-	20.04	-0.04	56.9	
R Cassiopeiæ.	Var.	8	23 51 18.52	5	+	3.010	...	56.0	39 23 27.3	5	-	20.04	...	56.6	
27 Piscium ...	5.4	3	23 51 30.52	1	+	3.076	-.008	56.8	94 19 58.5	3	-	20.04	+0.12	54.9	
ω Piscium.....	4.0	...	23 52 7.38	1	+	3.066	+.010	56.8	83 54 45.3	1	-	20.04	+0.13	56.9	
8333 B.A.C. ...	6.7	1	23 52 29.82	1	+	3.077	+.023	56.9	96 40 ...	..	-	20.05	+0.09	...
4193 Gr.	6.8	...	23 53 0	..	+	2.501	...	...	4 4 25.3	1	-	20.05	...	55.9
30 Piscium . *	5.0	...	23 54 46.81	2	+	3.076	+.002	55.2	96 47 33.6	1	-	20.05	+0.04	54.8	
85 Pegasi.....	6.2	2	23 54 51.92	2	+	3.057	+.067	56.8	63 39 ...	..	-	20.05	+0.95	...
3699 Carrington.	7.8	6.5	23 55 29.24	4	+	2.670	...	55.2	3 44 50.0	3	-	20.05	...	56.0	
33 Piscium....	5.0	...	23 58 10.14	4	+	3.073	-.002	55.3	96 29 28.3	4	-	20.05	-0.03	56.4	
8374 B.A.C. ...	6.4	4	23 59 21.26	3	+	3.070	+.035	56.8	61 45 31.5	5	-	20.06	+0.17	56.1	
3714 Carrington.	8.7	7	23 59 53.63	5	+	3.062	...	54.8	3 59 30.7	3	-	20.06	...	56.1	

OMITTED IN ITS PROPER PLACE.

61 Virginis....	5.0	...	13 11 5.36	3	+	3.201	-.075	54.4	107 31 52.1	3	+	19.10	+1.04	54.4
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STARS IN THE FOREGOING CATALOGUE

WHOSE PLACES DIFFER MORE THAN $0^{\circ}.5$ IN RIGHT ASCENSION AND $4''0$ IN N.P.D.
FROM THE CATALOGUE OF THE BRITISH ASSOCIATION.

No. in the Catalogue.	No. in B.A.C.	Star.	Excess of B.A.C. in R.A.	No. of Obs. in Catalogue.	Excess of B.A.C. in N.P.D.	No. of Obs. in Catalogue.	No. in the Catalogue.	No. in B.A.C.	Star.	Excess of B.A.C. in R.A.	No. of Obs. in Catalogue.	Excess of B.A.C. in N.P.D.	No. of Obs. in Catalogue.
2	6	.....	+ 0.89	2	.....	...	144	51544	Cassiopeia	+ 0.66	1	.....	...
5	10	.....	.....	...	- 5.2	1	149	535	.....	- 4.50	3	.....	...
6	21	6 Ceti	.....	...	- 4.8	3	166	607	.....	.....	...	+ 5.6	1
18	81	.....	.....	...	- 4.7	4	176	637	.....	.....	...	+ 7.7	2
22	98	.....	.....	...	- 7.2	1	189	692	20 Arietis.	.....	...	+ 4.8	3
23	101	47 Piscium	.....	...	- 5.5	3	191	700	.....	+ 0.53	2	.....	...
24	110	11 Ceti	+ 0.54	1	.....	...	199	742	.....	- 0.92	1	.....	...
29	114	13 Cassiopeia	+ 0.63	1	.....	...	200	743	.....	.....	...	- 12.0	1
42	160	.....	.....	...	+ 5.2	3	202	750	.....	.....	...	+ 6.9	1
49	173	32 Androm.	+ 1.12	1	.....	...	214	810	.....	+ 0.89	3	.....	...
51	178	.....	+ 0.82	3	.....	...	228	877	17 Persei	.....	...	+ 4.4	3
52	191	.....	.....	...	+ 5.1	3	233	913	47 Arietis	.....	...	+ 4.6	2
55	201	.....	+ 0.82	4	.....	...	234	908	.....	- 2.61	1	.....	...
58	217	61 Piscium	.....	...	+ 6.3	2	236	932	.....	.....	...	+ 5.4	1
63	223	64 Piscium	.....	...	- 5.9	1	248	976	.....	.....	...	+ 10.2	3
70	248	21 Ceti	.....	...	+ 6.7	2	253	1016	14 Eridani	+ 0.55	2	.....	...
79	281	70 Piscium	.....	...	- 7.0	1	258	1029	60 Arietis	- 1.11	2	.....	...
83	296	.....	+ 0.58	1	- 5.7	1	261	1055	.....	- 0.66	1	.....	...
98	338	32 Cassiopeia	- 4.48	1	.....	...	262	1063	.....	+ 0.51	3	.....	...
99	341	.....	.....	...	+ 6.2	1	263	1073	.....	.....	...	- 12.1	1
101	352	.....	+ 0.79	2	.....	...	266	1096	.....	- 0.80	1	.....	...
105	372	37 Ceti	.....	...	- 5.7	2	271	1123	.....	+ 1.06	2	.....	...
112	394	35 Cassiopeia	+ 2.90	1	.....	...	275	1137	γ Camelopardi	- 2.14	2	.....	...
119	420	θ Ceti	.....	...	- 6.1	1	281	1163	.....	+ 0.69	2	.....	...
128	454	.....	.....	...	+ 6.9	2	286	1205	.....	.....	...	+ 7.3	4
131	477	.....	.....	...	- 5.3	2	288	1222	.....	.....	...	+ 8.7	2
137	499	42 Cassiopeia	+ 0.76	1	.....	...	292	1247	.....	+ 2.80	2	.....	...
138	504	+ 0.62	1	300	1285	45 Tauri	+ 6.6	3
141	509	+ 0.66	1	301	1286	- 1.54	3
143	514	- 15.3	1	304	1302	48 Tauri	+ 5.2	4

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315	1308	- 0.50	1	478	2317	- 3.86	1
317	1350	63 Tauri	- 5.7	2	480	2331	+ 7.6	3
329	1404	+ 0.73	1	485	2349	18 Lynceis	+ 4.9	1
343	1451	54 Eridani.....	+ 0.43	1	.....	...	487	2363	.....	- 1.84	3	.....	...
352	1496	.....	- 1.82	1	.....	...	489	2371	.....	- 0.70	1	.....	...
354	1510	.....	- 0.64	1	.....	...	491	2383	.....	- 0.82	2	.....	...
370	1563	.....	- 1.91	1	.....	...	492	2377	.....	- 4.99	1	.....	...
377	1661	.....	- 1.60	2	.....	...	497	2420	.....	.....	...	- 8.1	3
378	1670	.....	.....	...	+ 8.9	4	500	2453	.....	.....	...	- 10.8	3
380	1678	.....	.....	...	- 5.1	1	502	2459	22 Lynceis	+ 0.67	3	.....	...
387	1708	.....	+ 0.61	1	.....	...	505	2470	.....	+ 0.91	5	.....	...
389	1713	.....	.....	...	+ 9.2	2	517	2521	.....	- 1.73	1	.....	...
394	1744	22 Camelop. ..	+ 0.62	2	- 5.2	2	524	2590	.....	- 1.26	3	.....	...
404	1804	0 Aurigæ	+ 0.83	3	.....	...	526	2599	.....	.....	...	- 11.5	5
410	1851	.....	.....	...	+ 8.4	3	532	2655	.....	.....	...	+ 5.9	5
414	1874	.....	- 1.78	3	- 5.1	1	538	2703	.....	- 0.64	5	.....	...
416	1881	.....	- 1.20	1	.....	...	557	2827	.....	.....	...	- 4.8	3
423	1934	χ^3 Orionis.....	.....	...	+ 4.3	4	558	2850	ν^3 Cancri.....	.....	...	+ 5.2	3
425	1952	36 Camelop. ..	- 0.76	3	.....	...	561	2883	.....	- 0.63	3	.....	...
432	2010	43 Aurigæ ....	.....	...	- 5.5	1	562	2898	.....	.....	...	+ 15.6	4
435	2022	75 Orionis /... ..	.....	...	+ 7.6	1	569	2997	52 Cancri.....	.....	...	- 5.0	3
437	2051	ζ Can. Maj....	.....	...	+ 4.1	6	571	3000	ρ^1 Cancri.....	- 1.38	2	.....	...
440	2076	.....	- 1.17	3	.....	...	577	3025	.....	.....	...	- 11.4	1
441	2088	78 Orionis ....	.....	...	+ 6.1	2	578	3031	.....	+ 0.69	2	+ 5.8	3
443	2095	.....	+ 2.54	1	.....	...	585	3078	.....	+ 0.68	3	.....	...
444	2107	7 Lynceis	+ 0.58	1	.....	...	586	3082	.....	.....	...	- 5.0	3
445	2120	8 Lynceis	- 0.51	3	.....	...	588	3104	.....	.....	...	- 4.8	3
446	2125	10 Lynceis.....	- 1.89	3	.....	...	593	3127	.....	+ 0.64	4	+ 5.5	3
448	2143	41 Camelop. ..	- 0.99	1	.....	...	595	3144	.....	- 1.06	3	+ 4.8	3
454	2187	12 Lynceis (2d)	- 1.35	1	.....	...	602	3183	.....	- 0.45	5	.....	...
465	2244	.....	+ 0.71	3	.....	...	604	3199	.....	- 0.80	3	.....	...
467	2266	.....	.....	...	+ 7.0	3	605	3206	.....	.....	...	+ 6.2	3
469	2272	19 Can. Maj....	.....	...	+ 4.4	5	610	3238	7 Leo. Min....	.....	...	+ 4.5	3
473	2303	- 6.22	1	- 23.6	3	621	3271	33 Hydræ	+ 5.2	6
474	2304	+ 0.74	2	+ 5.4	4	632	3361	23 Leonis.....	+ 1.28	5

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649	3489	- 10.0	1	857	4618	6 Boötis <i>e</i>	- 14.9	2
650	3500	23 Leo. Min...	+ 5.1	2	858	4634	- 16.0	2
656	3515	+ 6.2	2	865	4691	+ 7.0	2
661	3528	.....	.....	...	+ 6.3	3	875	4719	.....	.....	...	- 16.5	1
666	3566	.....	- 0.86	3	- 6.2	2	878	4769	.....	.....	...	+ 14.8	3
670	3576	.....	.....	...	+ 8.2	2	884	4823	σ Boötis .....	.....	...	+ 4.1	3
675	3627	.....	- 1.70	2	- 34.0	3	891	4869	108 Virginis ..	- 0.64	2	- 7.0	1
676	3628	.....	+ 0.69	2	+ 4.6	3	896	4905	ξ Boötis .....	.....	...	+ 5.2	1
677	3629	.....	+ 1.20	2	.....	...	897	4911	.....	+ 1.12	1	.....	...
683	3674	.....	.....	...	+ 6.6	3	898	4918	.....	- 0.81	3	.....	...
689	3733	^{b3} Hydrae.....	.....	...	- 6.0	3	913	5003	⁶² Librae .....	.....	...	- 13.6	3
690	3736	47 Leo. Min. .	.....	...	+ 6.1	3	920	5064	.....	+ 0.93	2	.....	...
697	3773	.....	+ 0.87	3	.....	...	922	5066	.....	.....	...	+ 5.3	1
701	3779	.....	.....	...	+ 5.5	2	923	5074	ϵ Librae .....	.....	...	+ 4.8	2
724	3913	58 Urs. Maj...	+ 1.19	3	.....	...	929	5116	.....	- 4.18	2	.....	...
725	3917	.....	+ 0.80	3	.....	...	930	5117	.....	.....	...	+ 9.6	1
728	3920	.....	- 0.55	2	.....	...	937	5161	41 Librae .....	.....	...	- 5.5	2
736	3965	61 Urs. Maj...	.....	...	+ 5.3	4	947	5215	.....	.....	...	- 8.2	1
750	4020	.....	+ 0.74	3	.....	...	980	5453	.....	- 1.21	2	- 4.7	3
752	4021	.....	+ 0.45	1	.....	...	981	5462	19 Urs. Min...	- 2.57	1	.....	...
759	4055	.....	+ 0.71	1	+ 7.7	3	983	5465	.....	+ 0.87	1	.....	...
760	4059	.....	+ 0.62	1	.....	...	984	5487	.....	+ 1.75	2	.....	...
765	4080	.....	+ 0.97	2	.....	...	991	5560	.....	+ 0.82	3	.....	...
781	4184	.....	+ 0.45	1	.....	...	992	5579	.....	.....	...	- 5.3	3
786	4212	20 Comae.....	+ 0.53	1	.....	...	993	5595	.....	+ 0.53	2	.....	...
787	4213	.....	.....	...	- 4.7	1	995	5606	15 Ophiuchi ..	.....	...	- 8.3	1
801	4303	11 Can. Ven.	+ 0.51	5	.....	...	997	5616	41 Herculis...	.....	...	- 4.5	1
808	4340	δ Virginis.....	.....	...	+ 4.1	1	998	5614	25 Scorpii.....	.....	...	+ 9.1	2
813	4363	.....	+ 0.54	2	.....	...	1000	5658	.....	+ 0.96	2	.....	...
814	4365	9 Draconis....	- 0.65	3	.....	...	1002	5709	.....	.....	...	+ 6.5	3
828	4462	.....	.....	...	+ 7.0	3	1003	5720	.....	+ 1.12	1	.....	...
840	4515	.....	+ 0.51	1	.....	...	1006	5752	.....	.....	...	- 9.2	3
852	4582	85 Virginis ...	.....	...	+ 6.5	3	1009	5780	ϵ Urs. Min. ...	- 2.17	4	.....	...
855	4607	η Urs. Maj....	- 0.53	5	1012	5798	63 Herculis ...	+ 0.75	1
856	4613	+ 7.7	1	1018	5815	- 1.05	2

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1028	5853	+ 0.65	2	1169	6802 <i>a</i> Aquilæ.....	+ 5.0	9
1030	5858	+ 1.79	1	+ 6.1	2	1176	6826 58 Aquilæ	+ 6.6	3
1032	5873	.....	+ 0.82	2	.....	...	1179	6853 11 Sagittæ...	.....	...	- 7.0	4
1033	5875	.....	+ 0.52	3	.....	...	1183	6875 25 Cygni.....	- 3.92	2	.....	...
1037	5884	.....	.....	...	+ 15.6	2	1184	6878 .....	.....	...	- 4.7	4
1038	5895	.....	- 1.08	2	.....	...	1186	6896 .....	.....	...	+ 8.3	3
1045	5978	26 Draconis...	.....	...	- 10.3	3	1187	6897 15 Sagittæ...	.....	...	- 4.8	4
1046	5990	6 Herculis.....	+ 0.57	3	.....	...	1194	6923 .....	.....	...	+ 5.1	1
1053	6030	.....	+ 0.52	5	.....	...	1195	6938 ξ^2 Capricorni.	.....	...	- 5.2	3
1054	6033	87 Herculis...	.....	...	- 24.9	3	1196	6941 .....	.....	...	- 11.1	3
1058	6053	63 Ophiuchi..	.....	...	+ 6.5	2	1202	6980	+ 0.66	1	+ 4.2	3
1061	6064	.....	.....	...	+ 19.4	1	1206	7006	- 1.71	2	.....	...
1074	6138	.....	.....	...	- 4.4	3	1207	7009	+ 0.51	2	+ 5.6	3
1099	6349	.....	- 0.79	8	.....	...	1209	7031 π Capricorni..	.....	...	- 5.0	3
1102	6368	.....	- 0.57	3	+ 7.4	3	1214	7051 72 Draconis...	- 3.81	1	- 17.4	2
1103	6369	.....	.....	...	+ 10.3	2	1220	7079	- 1.96	1	.....	...
1106	6386	.....	.....	...	+ 5.4	3	1221	7077 .....	.....	...	+ 5.5	3
1117	6478	50 Draconis...	.....	...	+ 4.3	7	1222	7081 .....	.....	...	- 4.1	3
1118	6480	.....	- 1.13	3	- 6.3	3	1223	7090 .....	.....	...	- 6.8	3
1121	6490	.....	.....	...	+ 6.0	2	1226	7117 26 Vulpeculæ.	+ 0.60	1	+ 5.0	3
1122	6520	16 Lyre.....	+ 0.55	1	.....	...	1232	7150 .....	.....	...	+ 6.2	3
1127	6542	.....	- 33.86	2	- 18.4	3	1247	7223 15 Delphini...	.....	...	- 20.5	4
1130	6562	.....	.....	...	+ 4.5	3	1251	7262	+ 0.57	3	+ 8.8	6
1131	6567	.....	.....	...	- 14.4	5	1252	7268	- 31.79	3	- 15.1	3
1134	6600	24 Aquilæ ...	.....	...	- 22.5	6	1253	7271 18 Delphini...	.....	...	+ 4.4	4
1136	6625	59 Draconis...	- 0.55	2	.....	...	1256	7283 10 Aquarii....	+ 0.57	2	.....	...
1137	6633	χ^1 Sagittari...	.....	...	+ 4.1	3	1258	7290 .....	.....	...	+ 4.7	2
1139	6644	31 Aquilæ <i>b</i>...	.....	...	- 4.8	3	1259	7300	+ 0.71	2	+ 4.2	2
1140	6646	δ Aquilæ.....	.....	...	+ 1.5	3	1274	7387	+ 0.51	3	.....	...
1141	6652	.....	- 0.61	2	.....	...	1280	7426 .....	.....	...	+ 6.6	3
1144	6683	.....	+ 0.84	3	.....	...	1281	7438	+ 0.99	1	.....	...
1150	6719	42 Aquilæ.....	.....	...	+ 4.2	3	1285	7400 36 Capricorni.	.....	...	- 4.1	3
1151	6723	.....	.....	...	- 5.3	2	1286	7461 35 Vulpeculæ.	+ 0.61	4	.....	...
1153	6735	σ Draconis	+ 4.0	8	1287	7468	+ 1.31	2
1157	6741	+ 0.50	3	+ 11.7	4	1290	7484	+ 11.8	1

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1292	7485	+ 6.0	2	1386	7876	- 6.2	2
1296	7494	- 5.9	2	1389	7880	8 Lacertæ	- 0.96	1	- 21.1	2
1298	7510	+ 0.60	1	1391	7881	+ 0.90	1
1300	7506	ε Capricorni	.....	...	- 5.3	1	1394	7891	.....	.....	...	- 16.3	3
1302	7520	5 Pegasi	.....	...	- 7.3	1	1400	7943	ξ Pegasi	.....	...	- 4.0	4
1304	7526	24 Aquarii	- 7.41	1	+ 6.1	2	1402	7950	.....	.....	...	+ 4.0	2
1305	7533	.....	.....	...	+ 5.8	2	1414	8002	.....	+ 0.82	2	.....	...
1308	7553	.....	+ 0.57	1	+ 6.8	1	1415	8004	.....	+ 0.57	2	- 4.3	1
1309	7556	45 Capricorni	.....	...	+ 7.1	2	1416	8005	2 Piscium	.....	...	+ 4.6	2
1317	7584	.....	.....	...	+ 4.8	3	1421	8036	3 Andromedæ	+ 0.62	1	.....	...
1319	7586	.....	.....	...	+ 5.0	1	1422	8050	87 Aquarii h^4	+ 0.58	1	- 5.1	1
1324	7628	.....	.....	...	+ 8.2	3	1425	8064	.....	+ 0.79	4	.....	...
1325	7636	.....	.....	...	+ 11.3	5	1429	8083	.....	- 1.66	2	.....	...
1326	7642	.....	+ 0.53	4	.....	...	1432	8105	γ Piscium	.....	...	- 5.4	2
1329	7668	.....	+ 0.52	1	.....	...	1433	8107	.....	- 0.51	1	.....	...
1330	7676	.....	+ 0.93	1	.....	...	1443	8159	67 Pegasi	+ 0.73	2	.....	...
1336	7699	18 Cephei	- 1.35	1	.....	...	1449	8193	.....	- 0.59	2	+ 5.4	3
1339	7705	.....	- 1.46	5	.....	...	1459	8243	λ Piscium	.....	...	- 4.3	4
1342	7715	.....	+ 0.50	1	- 7.5	1	1460	8246	ω ² Aquarii	.....	...	- 10.3	2
1343	7720	.....	.....	...	+ 7.4	1	1465	8288	.....	.....	...	+ 5.5	1
1348	7738	.....	.....	...	- 4.2	2	1467	8298	.....	- 1.32	2	.....	...
1350	7744	.....	.....	...	+ 5.4	2	1468	8314	.....	+ 0.51	1	.....	...
1352	7750	λ Piscis Austr.	.....	...	- 20.1	3	1472	8331	ω Piscium	.....	...	- 5.2	1
1355	7760	.....	+ 1.49	1	.....	...					
1359	7782	.....	+ 0.59	5	.....	...					
1361	7802	49 Aquarii	.....	...	+ 4.1	4							
1374	7840	σ Aquarii	.....	...	- 4.0	4							
1375	7843	38 Pegasi	.....	...	- 9.4	1							
1376	7845	5 Lacertæ	+ 1.75	5	.....	...					
1384	7865	.....	.....	...	+ 10.0	2							

NOTES TO THE CATALOGUE.

Catalogue
No.

2. Adopting the P.M. in the text, a former determination (1851.3) is almost identical with the present.

5. Rejecting P.M. Taylor's N.P.D. differs from ours $+ 1''9$.

6. We have the following N.P.D. of this Star brought up to 1860 by Precession only.

	°	'	"
Bradley 1755	106	13	44.4
Piazzi 1800			57.6
Argelander 1830			63.2
Taylor 1835			62.2
Rade. Obs. 1854.7			72.8

Whence P.M. $= + 0''259$; or omitting Taylor, $+ 0''274$. Applying the latter value, we have N.P.D.

	°	'	"
Bradley	106	14	13.1
Piazzi			14.0
Argelander			11.4
Taylor			9.0
Rade. Obs.			14.2

18. Adopting the P.M. in the text, Taylor's N.P.D. is nearly identical with ours.

22. Rejecting P.M. Bradley's N.P.D. is almost identical with ours.

23. Rejecting P.M. Taylor confirms our place.

24. The R.A. for 1860 (rejecting P.M.) is, by

	h.	m.	s.
Bradley	1755	0	22 43.44
Piazzi	1800		43.76
Taylor	1835		44.49
Rade. Obs. ...	1856.9		44.26

Whence P.M. $= + 0^s.0097$; which being applied, the R.A. 1860 is, by

	h.	m.	s.
Bradley	0	22	44.46
Piazzi			44.34
Taylor			44.73
Rade. Obs. ...			44.29

Mædler's value is $+ 0^s.0087$.

29. Comparison with a former determination of our own shows no P.M.
42. Adopting the P.M. in the text, Taylor's N.P.D. is nearly identical with ours.
49. Taylor's R.A. on which B.A.C. depends, appears to be 1^s too great. Our place is nearly identical with Bradley's, brought up without P.M. It is also confirmed by a former determination of our own.

51. The R.A. 1860 (rejecting P.M.) is, by

	h.	m.	s.
Piazzi	0	34	9.96
Taylor			11.06
Radc. Obs. ...			10.85

There appears to be a mistake of $-1^s.0$ in Piazzi, which has occasioned the P.M. ascribed to this Star in B.A.C.

52. Rejecting P.M. Taylor's N.P.D. agrees nearly with ours.
55. Rejecting P.M. a former determination of our own confirms the present place.
58. Rejecting P.M. Taylor's N.P.D. agrees nearly with ours.
63. Adopting the P.M. in the text, Taylor's N.P.D. differs $-3''6$.
70. Rejecting P.M. Taylor's N.P.D. nearly agrees with ours.
79. Rejecting P.M. Taylor's N.P.D. agrees very nearly with ours.
83. Rejecting P.M. Taylor's R.A. differs $+0.44$; his N.P.D. $-3''4$.
98. Rejecting P.M. a former determination of our own confirms the present result.
99. Adopting the P.M. in the text, Taylor's N.P.D. differs $+2''5$.
101. Rejecting P.M. a former determination (1846.S) confirms our present R.A.
105. Adopting the P.M. in the text, Argelander's N.P.D. (Åbo Catalogue) differs $-2''4$.
112. Rejecting P.M. a former determination differs $-0^s.25$ from the present result.
119. Adopting the P.M. in the text, the Greenwich 12-year Catalogue differs $-3''3$.

128. } Rejecting P.M. Taylor's N.P.D. differs { — 1"0.
 131. } — 1"2.

137. Rejecting P.M. and increasing Piazzi and Groombridge, respectively, 0".37 and 0".47, on the authority of Mædler and Fedorenko, the R.A. 1860 is, by

			h.	m.	s.
Bradley	1755	.....	1	32	7.31
Piazzi	1800	.....			7.39
Groombridge ...	1809	.....			(8.57)
Taylor	1835	.....			8.15
Radc. Obs.	1846	.....			8.01
.....	1857	.....			8.32

Whence, omitting Groombridge, who appears to be 1" too great, P.M. = + 0".0102; which being applied, the R.A. 1860 is, by

		h.	m.	s.
Bradley	1	32	8.38	
Piazzi			8.00	
Groombridge ...			(9.09)	
Taylor			8.41	
Radc. Obs.			8.15	
.....			8.35	

The P.M. in the text is from B.A.C. Mædler has adopted + 0".0097.

138. Rejecting P.M. Piazzi's R.A. differs — 0".28; Taylor's + 0".40.
 141. Rejecting P.M. a former determination (1847.4) differs + 0.15 from the present.
 143. Rejecting P.M. Bradley's N.P.D. differs from ours — 2"7.
 144. Rejecting P.M. a former determination (1846.8) differs from the present + 0".08.
 149. The adopted P.M. in the text is that given by me in *Ast. Soc.'s Monthly Notices*, vol. x. p. 172. Mr. Baily in B.A.C. had supposed Taylor's R.A. to be wrong to the amount of one year's Precession, which I showed was not the case. The place for 1860 (rejecting P.M., and increasing Piazzi's and Groombridge's R.A. respectively 0".31 and 0".37) is, by

			R.A.				N.P.D.		
			h.	m.	s.		°	'	"
Lalande	1790	.....	1	37	33.87	1790	.....	26	50 7.3
Piazzi	1800	.....			34.49	1800	.....		12.3
Groombridge ...	1810	.....			35.29	1810	.....		14.9
Taylor	1835	.....			38.00	1835	.....		19.6
Greenwich	1843	.....			38.43	1843	.....		21.3
Radc. Obs.	1844.7	...			38.48	1842.4	...		23.7
.....	1856.9	...			39.53	1856.0	...		25.0

Whence P.M. in R.A. = $+ 0^s.0880$.

N.P.D. = $+ 0''254$.

Which being applied, the place for 1860 is,

	R.A.			N.P.D.		
	h.	m.	s.	°	'	"
Lalande	1	37	40.03	26	50	25.1
Piazzi			39.77			27.5
Groombridge ...			39.69			27.6
Taylor			40.20			25.9
Greenwich			39.93			25.6
Radc. Obs.			39.83			28.2
.....			39.80			26.0

166. }
 176. } Rejecting P.M. Taylor's N.P.D. differs $\left\{ \begin{array}{l} + 0''8. \\ + 0''8. \\ - 1''6. \end{array} \right.$
 189. }

191. The R.A. 1860 (without P.M. and increasing Piazzi and Groombridge respectively $0^s.31$ and $0^s.25$) is, by

	h. m. s.		
Piazzi.....	1800	.....	2 9 16.14
Groombridge...	1811	.....	16.21
Taylor.....	1835	.....	16.42
Radc. Obs.....	1847	.....	16.42
.....	1856.9	...	16.15

Whence P.M. = $+ 0^s.0022$.

199. Rejecting P.M. Taylor's R.A. differs $+ 0^s.13$. The other authorities of B.A.C. are Lacaille and Brisbane.

200. Rejecting P.M. Taylor's N.P.D. differs $- 1''4$.

202. Adopting the P.M. in the text, Taylor's N.P.D. differs $+ 1.8$.

214. Rejecting P.M. Piazzi's R.A. differs $- 0.29$; Taylor's $+ 0.34$.

228. Rejecting P.M. Taylor's N.P.D. differs $- 1''1$.

233. Adopting the P.M. in the text, the N.P.D. of the Greenwich 12-year differs $+ 1''1$.

234. The R.A. 1860 (without P.M., and increasing Groombridge $0^s.65$, a mean of Mædler's and Fedorenko's corrections) is, by

	h. m. s.		
Bradley	1755	.....	22 50 20.32
Lalande	1790	.....	18.51
Groombridge ...	1808	.....	17.90
Radc. Obs.....	1845.3	...	17.48
.....	1856.9	...	17.86

Whence P.M. = $-0^s.0240$; or omitting Bradley (who has only *one* observation), P.M. = $-0^s.0106$. With these values we have the R.A. 1860, respectively,

	P.M. — $0^s.0240$			= $-0^s.0106$		
	h.	m.	s.		h.	m.
Bradley.....	22	50	17.30			(19.21)
Lalande.....			16.83			17.77
Groombridge..			16.70			17.37
Rade. Obs. ...			17.13			17.32
.....			17.79			17.83

I prefer the smaller value, for (without P.M.) Mr. Carrington's R.A. in 1855 is identical with Schwerd's, who observed about the year 1826. If there were the larger P.M. it would have amounted in the interval to about $0^s.7$, a quantity not likely to have escaped detection by those observers, even in the parallel of this Star. Their R.A. is $0^s.13$ less than our result in 1856, after deducting P.M.

236. } Rejecting P.M. Taylor's N.P.D. differs $\left\{ \begin{array}{l} + 0^s.6. \\ 248. \end{array} \right.$
 248. } $\left\{ \begin{array}{l} + 1^s.7. \end{array} \right.$

253. Rejecting P.M. the Greenwich 12-year confirms our R.A.

258. The R.A. of B.A.C. is *one second* too small, in consequence of a mistake in Taylor. Reduced without P.M. the R.A. 1860 is, by

	h.	m.	s.
Bradley.....	1755	.....	3 12 8.09
Piazzi	1800	.....	7.73
Taylor	1835	.....	(6.95)
Rade. Obs.....	1856.9	...	7.99

According to Mædler, Piazzi's R.A. should be increased $0^s.20$. There is, therefore, no appearance of P.M.

261. Adopting the P.M. in the text, Bradley's R.A. differs $+ 0^s.55$.

262. The R.A. 1860 (brought up without P.M., and $0^s.22$, $0^s.20$ being added to Piazzi and Groombridge, respectively) is, by

	h.	m.	s.
Piazzi.....	1800	.....	3 18 50.55
Groombridge...	1815	.....	51.28
Taylor	1835	.....	51.05
Rade. Obs.....	1846.2	...	50.93
.....	1854.7	...	50.83

Whence, P.M. = $+ 0^s.002$. But, excepting Piazzi, the above values exhibit very consistently a *minus* P.M. and supposing Piazzi to be

one second too small, the resulting value is $-0^s.0128$. The R.A. on these two hypotheses is,

	P.M. + $0^s.002$			s.			— $0^s.0128$		
	h.	m.	s.	h.	m.	s.	h.	m.	s.
Piazzi	3	18	50.67						50.78
Groombridge ...			51.37						50.70
Taylor.....			51.10						50.72
Radc. Obs.			50.96						50.75
.....			50.84						50.76

The sum of the squares of the errors being, $\cdot 2888$ and $\cdot 0042$, respectively.

263. Rejecting P.M. Taylor's N.P.D. differs $+ 2''5$.
 266. Rejecting P.M. Taylor's R.A. differs $+ 0^s.30$.
 271. Rejecting P.M. Piazzi's R.A. differs $- 0''43$; Taylor's $+ 0.60$.
 275. Rejecting P.M. a former determination (1844.5) confirms our R.A.
 281. The R.A. 1860 (without P.M. and adding $0^s.20$ to Piazzi) is, by

	h. m. s.		
Piazzi	1800	.....	3 38 38.72
Taylor	1835	.....	39.44
Rümker	1836	.....	39.17
Radc. Obs. ...	1855.9	...	39.16

Whence P.M. $= + 0^s.0020$.

286. Adopting the P.M. in the text, Bradley's N.P.D. differs from ours $+ 4''0$; Jacob's (*Madras Observation*, 1848—52) $- 1''0$. Jacob also confirms our R.A. which differs $- 0^s.42$ from B.A.C.
 288. There appears to be a mistake in the *sign* in B.A.C. Brought up by Precession only, Taylor's N.P.D. (1835) differs from ours (1854.5) $+ 6''4$; which gives a P.M. $= - 0''323$, instead of $+ 0''35$.
 292. Rejecting P.M. the R.A. by a former determination differs from the present $- 0^s.48$.
 300. Rejecting P.M. Taylor's N.P.D. differs from ours $- 0''8$.
 301. Rejecting P.M. a former determination (1844.5) differs in R.A. from the present $- 0^s.37$; Taylor $- 1^s.08$; and Piazzi $- 0^s.54$. The P.M. resulting from these values is $+ .0075$, which, being applied, we have R.A. 1860 by

	h. m. s.		
Piazzi	4	4	35.11
Taylor			34.31
Radc. Obs. 1845.....			34.94
..... 1856.....			35.23

304. Rejecting P.M. Taylor's N.P.D. differs from ours $+ 0''3$.
315. The large P.M. ascribed to this Star in B.A.C. is probably erroneous. Rejecting it, Taylor's R.A. is $0^{\circ}.40$ *greater* than ours. The other authorities of B.A.C. are Lacaille and Brisbane.
317. Rejecting P.M. Taylor's N.P.D. differs from ours $+ 1''9$.
329. Rejecting P.M. Piazzi's R.A. differs from ours $- 0^{\circ}.31$; Taylor's $- 0^{\circ}.42$.
343. Rejecting P.M. Piazzi's R.A. differs from ours $+ 0^{\circ}.20$; Taylor's $+ 0^{\circ}.38$.
352. Rejecting P.M. a former determination (1846.4) differs $- 0^{\circ}.26$ from the present.
354. The R.A. 1860 (without P.M. and adding $+ 0^{\circ}.60$ and $0^{\circ}.43$ to Piazzi and Groombridge respectively) is, by

		h.	m.	s.
Piazzi	1800	4	47	4.32
Groombridge ...	1811			3.62
Taylor	1835			(2.86)
Radc. Obs.	1846			3.70
.....	1856			3.94

Probably there is a mistake of $- 1^{\circ}.0$ in Taylor, but there is no indication of P.M.

370. The R.A. 1860 (without P.M. and increasing Piazzi and Groombridge, respectively, $0^{\circ}.59$ and $1^{\circ}.05$ according to Mædler and Fedorenko) is, by

		h.	m.	s.
Lalande	1790	4	59	36.28
Piazzi	1800			36.42
Groombridge ...	1808.4 ...			35.02
Taylor	1835			33.47
Radc. Obs.	1849.2 ...			34.30
.....	1855			34.03

Whence P.M. = $- 0^{\circ}.0347$, which being applied, we have R.A. by

	h.	m.	s.
Lalande	4	59	33.78
Piazzi			34.28
Groombridge ...			33.16
Taylor			32.58
Radc. Obs.			33.91
.....			33.85

Our large difference from B.A.C. arises from the adoption, in that work, of Taylor's place, which appears to be about *one second* too small.

377. Rejecting P.M. Taylor's R.A. differs $- 0^{\circ}.21$.
378. Rejecting P.M. Taylor's N.P.D. differs $+ 0''2$.

380. The sole authority for B.A.C.'s place is "*Histoire Celeste*." Jacob differs in N.P.D. from us — $1''8$.

387. Rejecting P.M. Piazzi's R.A. differs — $1^s.31$, Taylor's — $0^s.07$.

389. Admitting the P.M. in the text, Taylor's N.P.D. differs — $0''8$; a former determination — $3''0$.

394. The R.A. for 1860 of this Star, brought up by Precession, according to different authorities, is as follows:

		h.	m.	s.
Piazzi.....	1800 =	5	27	16.08
Taylor	1835 =			15.96
Radc. Obs.....	1848 =			16.20
.....	1856 =			16.40

The P.M. according to these values, is $+ 0^s.0045$. Applying it, we have the R.A. for 1860, by

		h.	m.	s.
Piazzi		5	27	16.35
Taylor				16.07
Radc. Obs. 1848				16.25
..... 1856				16.42

In N.P.D. we have the following places reduced to 1860 by Precession only,

		°	'	"
Bradley	1755	33	43	17.8
Piazzi	1800			24.2
Groombridge	1810			25.4
Taylor	1835			31.7
Radc. Obs. ..	1846			30.6
.....	1857			34.8

from which we obtain P.M. $+ 0''163$. Applying it, we have the N.P.D. by

		°	'	"
Bradley		33	43	34.9
Piazzi				34.0
Groombridge				33.7
Taylor				35.8
Radc. Obs. 1846				32.9
..... 1857				35.3

404. Rejecting P.M. the R.A. agrees with a former determination.

410. Rejecting P.M. Taylor's N.P.D. differs $+ 0.9$.

414. The place of this Star (without P.M. and increasing Piazz's and Groombridge's R.A. by $+ 0^{\circ}.57, 0^{\circ}.43$ respectively) is, by

R.A.			N.P.D.		
	h.	m.	s.		
Lalande	1790	.....	5 46 16.88	1790	..... $23^{\circ} 0'$ (9.0)
Piazz	1800	.....	18.37	1800	..... 21.4
Groombridge ...	1811	.....	17.68	1811	..... 20.7
Taylor.....	1835	.....	16.81	1835	..... 24.1
Rade. Obs. ...	1844.2	...	17.74	1844.3	... 24.2
.....	1856.1	...	17.85	1856.1	... 24.4

The R.A.'s are too discordant to attempt to deduce from them any P.M. Omitting Lalande, P.M. in N.P.D. = $+ 0.068$.

	$^{\circ}$	$'$	$''$
Lalande	23	0	(13.8)
Piazz		25	5
Groombridge ...		24	0
Taylor		25	8
Rade. Obs.		25	3
.....		24	7

Possibly there may be an error of $10''$ in Lalande's Catalogue.

416. Rejecting P.M. a former determination differs $- 0^{\circ}.28$.
423. Rejecting P.M. Taylor's N.P.D. differs $+ 1.1$.
- 425 Rejecting P.M. our R.A. is almost identical with a former determination.
432. Adopting the P.M. in the text, Taylor's N.P.D. differs $- 2''0$; and a former determination of our own $- 3''2$.
435. Adopting the P.M. in the text, Taylor's N.P.D. differs $+ 0''5$.
- 437 Our N.P.D. is nearly identical with that in the Greenwich 1850 Catalogue.
440. Our R.A. is confirmed by Jacob. This Star does not appear to have any P.M. in R.A.
441. Rejecting P.M. our N.P.D. is identical with Taylor's.
443. }
 444. } Former determinations confirm our R.A. of these Stars.
 445. }
446. A former determination confirms our R.A. There appears to be a small P.M. in the opposite direction to that in the text.

448. } Former determinations confirm our R.A. of these Stars. There
454. } appears to be no P.M.
465. Rejecting P.M. Taylor's R.A. differs + 0^s.31.
467. Adopting P.M. in the text, Taylor's N.P.D. differs — 2["]5.
469. Rejecting P.M. Taylor's N.P.D. is identical with ours.
473. The R.A. of this Star in B.A.C. is deduced from a comparison of Lacaille and Brisbane. The N.P.D. depends altogether on Lacaille.
474. Rejecting P.M. Taylor differs in R.A. + 0^s.33; and in N.P.D. + 2["]4.
478. Rejecting P.M. a former determination confirms our place.
480. Rejecting P.M. Taylor's N.P.D. differs + 1["]5.
485. Adopting the P.M. in the text, a former determination confirms our place.
487. Our place is confirmed by Jacob. There appears to be no P.M.
489. There is a mistake of + 1^s in our R.A. made in reducing to 1860, (for 41^s.10 read 40^s.10.) The B.A.C. differs from us + 0^s.70. Rejecting P.M. Taylor's R.A. is identical with ours.
491. Rejecting P.M. Taylor's R.A. is nearly identical with ours.
492. Adopting the P.M. in the text, a former determination of our own confirms this R.A.
497. Rejecting P.M. Taylor's N.P.D. differs + 2["]4. This is equivalent to a P.M. = — 0["]126, instead of — 0["]56, given in B.A.C.
500. Rejecting P.M. Taylor's N.P.D. differs from us + 2["]2. This is equivalent to a P.M. = — 0["]114, instead of — 0["]39, given in B.A.C.
502. The R.A. 1860 (P.M. and increasing Piazzì and Groombridge respectively 0^s.20, 0^s.23) is, by

			h.	m.	s.
Piazzì	1800	.....	7	19	17.30
Groombridge ...	1811	.....			16.93
Taylor	1835	.....			16.98
Greenwich	1843	.....			17.35
Radc. Obs.	1843.6	...			17.33
.....	1854.1	...			17.44

Whence, P.M. = + 0^s.0029, but the result, as will be seen, is very uncertain.

505. Rejecting P.M. Piazzì's R.A. differs — $0^{\circ}.21$, Taylor's + $0^{\circ}.32$.
517. Adopting the P.M. in the text, a previous determination of our own (1846.9) is identical with the present. Taylor differs from us — $0^{\circ}.53$.
524. Rejecting P.M. Taylor and a previous determination of our own confirm the present place. Taylor differs — $0^{\circ}.18$.
526. } Rejecting P.M. Taylor's N.P.D. differs { — $2^{\circ}.3$.
 532. } + $1^{\circ}.5$.
538. Adopting P.M. in the text, Taylor's R.A. differs — $0^{\circ}.58$; Bradley's — $0^{\circ}.26$; Piazzì's + $0^{\circ}.20$.
557. Rejecting P.M. Taylor's N.P.D. is almost identical with ours.
558. Rejecting P.M. Taylor's N.P.D. differs + $1^{\circ}.6$.
561. Our results confirm the large P.M. ascribed to this Star in B.A.C. (2883). The place for 1860 without P.M. is,

			R.A.			N.P.D.		
			h.	m.	s.			
Taylor	1838.5	...	8	27	25.60	1838.5	...	121° 3' 33.4"
Rade. Obs. ...	1855.9	...			23.91	1855.2	...	21.0

Whence, P.M. in R.A. = — $0^{\circ}.096$; N.P.D. = — $0^{\circ}.74$.

The other authorities of B.A.C. besides Taylor, are Lacaille and Brisbane. Taylor observed the Star sometime in the course of the years 1838 and 1839, I have therefore assumed 1838.5 as his epoch.

562. The B.A.C. place of this Star is derived from Lacaille and Brisbane. Jacob confirms our N.P.D.
569. Rejecting P.M. Taylor's N.P.D. differs from us + $0^{\circ}.6$.
571. Rejecting P.M. Piazzì's R.A. agrees very nearly with ours; Taylor's is 1° . too small.
577. Our N.P.D. of this Star is probably too great, (it depends on a single observation, S.P.) Taylor differs from it (rejecting P.M.) — $8^{\circ}.1$; a former determination of our own — $7^{\circ}.2$.
578. The place for 1860 without P.M. is, by

			R.A.			N.P.D.		
			h.	m.	s.			
Piazzì	1800	.....	8	47	53.60	1800	.....	$75^{\circ} \quad 17' \quad 8.7''$
Taylor.....	1835	.....			53.77	1835	.....	9.5
Rade. Obs. ...	1856.2	...			53.59	1854.2	...	11.5

Hence there appears to be no P.M. in R.A. The N.P.D.'s show a P.M. = + $0^{\circ}.048$.

585. Rejecting P.M. Taylor's R.A. differs $+ 0^{\circ}.37$; Piazzì $- 0^{\circ}.24$.
586. The B.A.C. place is derived from Lacaille and Brisbane. Jacob confirms our R.A.
588. Rejecting P.M. Taylor differs $+ 0^{\circ}.7$.
593. Rejecting P.M. Piazzì's R.A. is $0^{\circ}.27$ less; Taylor's $0^{\circ}.32$ greater: their N.P.D. is almost identical with ours.
595. The place for 1860 without P.M. is,

R.A.				N.P.D.			
h. m. s.				° ' "			
Bradley	1755	.....	9 6 38.23	1755	.....	54 47 32.9	
Piazzì.....	1800	.....	37.90	1800	.....	30.6	
Taylor.....	1835	.....	37.42	1835	.....	31.8	
Radc. Obs. ...	1855.1	...	38.09	1854.2	...	30.5	

There is no indication of P.M. in either direction. Our large difference from B.A.C. in R.A. probably arises from an error of $- 1^{\circ}.0$ in Taylor, which occasioned also the P.M. ascribed to this Star in B.A.C. from which that in the text is taken.

602. Rejecting P.M. Taylor's R.A. differs $- 0^{\circ}.18$.
604. Adopting the P.M. in the text, Taylor's R.A. differs $- 0^{\circ}.14$, and a former determination of our own $- 0^{\circ}.45$.
605. } Rejecting P.M. Taylor's N.P.D. is nearly identical with ours.
610. }
621. Rejecting P.M. Taylor's N.P.D. differs $- 1^{\circ}.0$.
632. Rejecting P.M. Taylor's R.A. is nearly identical with ours.
649. Rejecting P.M. Taylor's N.P.D. differs $+ 1^{\circ}.8$.
650. Rejecting P.M. Taylor's N.P.D. is almost identical with ours.
656. Rejecting P.M. the N.P.D. of this Star reduced to 1860 is as follows:

Piazzì	1800	.....	45 14 9.9
Taylor	1835	.....	23.5
Radc. Obs...	1847.3	...	24.6
.....	1856.3	...	28.1

Hence P.M. = $+ 0^{\circ}.32$; which applied to the above makes the corrected place 1860.0, by

Piazzì	45 14 29.2
Taylor	31.5
Radc. Obs.	28.8
.....	29.3

661. Rejecting P.M. Taylor and a former determination of our own confirm our N.P.D.
666. Rejecting P.M. Bradley's R.A. differs from us $+ 0^{\circ}.57$; N.P.D. $+ 3''.7$; which give P.M. in R.A. $= - 0^{\circ}.0056$; in N.P.D. $= + 0''.037$. But Bradley has only one observation of this Star.
670. Rejecting P.M. Taylor's N.P.D. differs $- 1''.4$.
675. Rejecting P.M. Jacob differs in R.A. $+ 0^{\circ}.23$; in N.P.D. $+ 0''.3$.
676. Rejecting P.M. Taylor differs in R.A. $+ 0^{\circ}.40$; his N.P.D. is identical with ours.
677. Rejecting P.M. a former determination of our own differs $- 0^{\circ}.33$ in R.A.
683. Rejecting P.M. Jacob differs in R.A. $+ 0^{\circ}.31$; in N.P.D. $- 1''.1$.
689. Rejecting P.M. the following is the N.P.D. of this Star, according to different observers, reduced to 1860,

Bradley 1755	109°	$22'$	$55''.0$
Piazzi..... 1800		$22'$	$53''.3$
Taylor..... 1835		$23'$	$3''.4$
Rade. Obs. 1854		$23'$	$9''.3$

Bradley's place, it will be perceived, is inconsistent with the rest, which concur in giving a P.M. $= + 0.295$. Correcting the several results for this value, we have the N.P.D. 1860.0,

Bradley	109°	$23'$	$26''.0$
Piazzi.....			$11''.0$
Taylor			$10''.8$
Rade. Obs.			$11''.0$

690. Rejecting P.M. Taylor's N.P.D. is identical with ours.
697. Rejecting P.M. Piazzi's R.A. differs $- 0^{\circ}.39$; Taylor's $+ 0^{\circ}.50$.
701. Rejecting P.M. the N.P.D. reduced to 1860, according to different observers, is as follows:

Piazzi	1800	89°	$59'$	$33''.5$
Taylor	1835			$41''.0$
Rade. Obs. ..	1854			$44''.4$

From these places, P.M. $= + 0.203$; which, being applied, we have the N.P.D. for 1860.0 by

Piazzi	89°	$59'$	$45''.7$
Taylor			$46''.1$
Rade. Obs.			$45''.6$

724. Rejecting P.M. Taylor and a previous determination of our own confirm the present place.

725. Rejecting P.M. Piazzì's R.A. differs $- 0^s.19$; Taylor's $+ 0^s.48$.

728. Rejecting P.M. Taylor's R.A. differs $- 0^s.17$.

736. Rejecting P.M. the N.P.D. reduced to 1860, by

	^o	'	"
Piazzì..... 1800	55	0	4.6
Argelander .. 1830			16.5
Taylor	1835		19.0
Radc. Obs.... 1855			24.5

Whence P.M. = $+ 0.367$, which, being applied to the foregoing places, we have N.P.D. for 1860, by

	^o	'	"
Piazzì	55	0	26.6
Argelander			27.5
Taylor			28.2
Radc. Obs.			26.3

750. Rejecting P.M. Piazzì's R.A. differs $- 0^s.18$; Taylor's $+ 0^s.45$.

752. Rejecting P.M. Taylor's R.A. differs $+ 0^s.17$.

759. Rejecting P.M. Piazzì's R.A. differs $- 0^s.12$; Taylor's $+ 0^s.43$. Taylor's N.P.D. is almost identical with ours, supposing there is no P.M.

760. The P.M. assigned to this Star in B.A.C. appears to be too small. Its R.A. (rejecting P.M.) reduced to 1860 is, by

		h.	m.	s.
Piazzì	1800	11	55	24.14
Taylor	1835			23.39
Radc. Obs..	1855			22.53

Whence P.M. = $- 0.0284$; which being applied, the corrected R.A. 1860 is as follows:

		h.	m.	s.
Piazzì		11	55	22.44
Taylor				22.68
Radc. Obs.				22.39

765. Rejecting P.M. Piazzì's R.A. differs $- 0^s.08$; Taylor's $+ 0^s.63$.

781. Rejecting P.M. Taylor's R.A. differs $+ 0^s.15$.

786. Rejecting P.M. Piazzì's R.A. differs $- 0^s.62$; Taylor's $+ 0^s.24$.

787. Our N.P.D. is probably too great. Rejecting P.M. Piazzì differs $- 3''8$; Taylor $- 4''6$.

801. Rejecting P.M. a former determination confirms the present R.A.

808. Adopting the P.M. in the text, Greenwich 1850 Catalogue differs + 3.6.

813. Rejecting P.M. Piazz's R.A. differs $-0^{\circ}.50$; Taylor's + $0^{\circ}.21$.

814. The discordance between our R.A. and that of the B.A.C. arises probably from the adoption of a too great P.M. owing to a mistake of 1° in Bradley's place (who observed the Star only once in R.A.) Rejecting P.M. we have the following determinations reduced to 1860.

		h.	m.	s.
Bradley	1755 ...	12	54	39.11
Piazz	1800 ...			37.87
Taylor	1830 ...			37.20
Greenwich 12-year	1844 ...			37.40
Radc. Obs.	1844 ...			37.60
.....	1854 ...			37.40

The P.M. resulting from all these values is $-0^{\circ}.0173$, nearly the same as that given in B.A.C. and by Mr. Main. But if we reject Bradley, we obtain a P.M. = $-0^{\circ}.0085$; which applied to the above places, makes the R.A. for 1860 as follows:

		h.	m.	s.
Bradley	12 54	38.22		
Piazz		37.37		
Taylor		36.99		
Greenwich 12-year		37.27		
Radc. Obs. 1844		37.47		
..... 1854		37.35		

828. Rejecting P.M. Bradley's N.P.D. differs $-2^{\circ}.3$; Jacob's $-0^{\circ}.9$.

840. The P.M. of this Star in B.A.C. appears to be too small. Rejecting P.M. its R.A. in 1860 is as follows:

		h.	m.	s.
Piazz	1800 ...	13	24	38.52
Taylor	1835 ...			36.82
Radc. Obs.	1856 ...			35.27

Whence, P.M. = $-0^{\circ}.0572$. Applying this value to the above places, we have the R.A. for 1860.0, by

		h.	m.	s.
Piazz	13 24	35.10		
Taylor		34.82		
Radc. Obs		35.07		

852. Rejecting P.M. Taylor's N.P.D. differs + $1^{\circ}.1$.

855. The P.M. in R.A. of B.A.C. ($+ 0^s.033$) is too great. The value adopted in the text is Mr. Main's.
856. Rejecting P.M. Taylor's N.P.D. differs $+ 0^s.6$.
857. Rejecting P.M. Piazzì's N.P.D. differs $+ 1^s.6$; Taylor's $- 6^s.1$.
858. Rejecting P.M. Taylor's N.P.D. differs $+ 0^s.8$.
865. Rejecting P.M. Piazzì's N.P.D. differs $- 4^s.4$; Taylor's $- 2^s.3$. So there appears to be a P.M. $= + 0^s.07$ nearly, instead of $+ 0^s.27$.
875. Rejecting P.M. Taylor's N.P.D. differs $+ 1^s.5$.
878. Rejecting P.M. Piazzì's N.P.D. is identical with ours; Taylor differs $+ 9^s.8$.
884. The adopted P.M. in N.P.D. (from B.A.C.) appears to be too small. The N.P.D. reduced to 1860 by Precession only, by

Bradley	1755 ...	⁰ 59 ['] 38	["] 56.1
Piazzì.....	1800 ...		48.9
Argelander	1830 ...		44.0
Taylor	1835 ...		46.1
Radc. Obs.....	1854 ...		39.1

Whence P.M. $= - 0^s.163$. Applying this value, we have N.P.D. 1860, by

Bradley	55 ⁰ 38	["] 39.0
Piazzì		39.1
Argelander		39.1
Taylor		42.1
Radc. Obs.		38.1

891. Rejecting P.M. Piazzì's R.A. differs $+ 0^s.13$; Taylor's $- 0^s.35$. In N.P.D. Bradley differs $- 0^s.7$; Piazzì $- 3^s.1$; Taylor $- 3^s.8$. There seems, therefore, to be no appreciable P.M. in this Star.
896. Rejecting P.M. Piazzì's N.P.D. differs $- 1^s.6$; Taylor's $+ 2^s.1$.
897. Rejecting P.M. Taylor's R.A. differs $+ 0^s.51$. The other authorities of the B.A.C. are Lacaille and Brisbane.
898. The R.A. 1860 (without P.M. and increasing Piazzì and Groombridge respectively $0^s.36, 0^s.30$ according to Mædler and Fedorenko) is, by

		h. m. s.
Piazzì.....	1800	14 47 54.24
Groombridge...	1810.5 ...	54.41
Taylor	1835	53.15
Radc. Obs.....	1847	53.71
.....	1854.4 ...	53.46

K*

Whence P.M. = $-0^{\circ}.0177$; which being applied, we have R.A. by

	h.	m.	s.
Piazzi.....	14	47	53.18
Groombridge...			53.53
Taylor			52.71
Radc. Obs.....			53.48
.....			53.36

913. Rejecting P.M. Bradley's N.P.D. differs $-2''6$; Piazzi's $-4''4$; Taylor's $-10''0$. The N.P.D. of the B.A.C. is derived from Taylor, and the P.M. from comparison of him with Bradley.

920. Rejecting P.M. a former determination confirms our present place; Taylor differs $+0^{\circ}.31$.

922. Adopting the P.M. in the text, Taylor's N.P.D. differs $-2''3$.

923. Our difference from B.A.C. is in this case probably owing to the adoption of a too large P.M. Reduced by Precession alone, we have the following N.P.D. for 1860.

	°	'	"
Bradley	1755	... 98	48 43.4
Piazzi.....	1800	...	46.3
Taylor	1830	...	55.0
Radc. Obs.....	1855	...	56.8

Whence P.M. = $+0^{\circ}.144$; and applying it, we have the corrected N.P.D. for 1860,

	°	'	"
Bradley	98	48	58.5
Piazzi			54.9
Taylor			58.6
Radc. Obs.			57.5

929. Brought up by Precession, (and adding $0^{\circ}.33$ to Piazzi, and $0^{\circ}.40$ to Groombridge,) the R.A. of this Star for 1860, by

	h.	m.	s.
Lalande.....	1790	..... 15	25 11.45
Piazzi.....	1800	.....	11.27
Groombridge...	1814	.....	11.94
Taylor	1835	.....	(9.04)
Radc. Obs.....	1847.2	...	11.74
.....	1856.5	...	12.02

Whence (omitting Taylor) P.M. = $+0^{\circ}.0080$; which being applied, the R.A. 1860 is, by

	h.	m.	s.
Lalande	15	25	12.01
Piazzi.....			11.75
Groombridge...			12.29
Taylor			(9.26)
Radc. Obs.....			11.84
.....			12.05

930. Rejecting P.M. Taylor's N.P.D. differs $+1''.5$.

937. The difference in N.P.D. in this case arises, I believe, partly from the adoption of a too small P.M. in B.A.C., and, partly, from the present result being too great. Mr. Main has given P.M. = $+0''.05$, (the value adopted in the text,) which probably is very near the truth. We have the following N.P.D. reduced by Precession only to 1860,

	°	'	"
Bradley	1755	108	50 7.5
Piazzi	1800		9.1
Taylor	1835		11.5
Greenwich 12-year	1845		12.6
Radc. Obs.	1855.5		14.9

Whence P.M. = $+0''.067$; which being applied to the several determinations, the N.P.D. for 1860, becomes

	°	'	"
Bradley	108	50	14.5
Piazzi			13.1
Taylor			13.2
Greenwich.....			13.6
Radc. Obs.....			15.2

947. Rejecting P.M. Taylor differs $+4''.0$. The other authorities are Lacaille and Brisbane.

980. Rejecting P.M. Piazzi differs $-1^{\circ}.06$; Taylor $+0^{\circ}.48$. Our place is confirmed by a previous determination (1847).

981. Reduced by Precession alone, the following is the R.A. of this Star, according to different authorities, for 1860,

	h.	m.	s.
Piazzi	1800	16	14 51.54
Taylor	1835		51.57
Greenwich	1845		51.67
Radc. Obs. ...	1846		51.97
.....	1856.4		52.30

Whence P.M. = $+0.0122$; which being applied, we have R.A. 1860, by

	h. m. s.		
Piazzi... ..	16	14	52.27
Taylor			51.87
Greenwich...			51.85
Radc. Obs....			52.14
.....			52.35

988. Rejecting P.M. Piazzi's R.A. differs -0.15 ; Taylor's $+0.54$.

984. The place of this Star in B.A.C. depends altogether on Lacaille and Brisbane. Rejecting P.M. Jacob's R.A. differs $+0.32$; and his N.P.D. $+4'2$. The N.P.D. of B.A.C. differs $-2'6$.

991. Rejecting P.M. a former determination (1846) differs $+0.09$ from the present.

992. We have the following determinations of the N.P.D. of this Star reduced to 1860 by Precession only.

	° ' "		
Bradley	1755	107	28 3.9
Piazzi	1800	...	0.9
Johnson	1830	...	2.2
Taylor	1835	...	2.9
Greenwich	1846	...	3.4
.....	1850	...	3.0
Radc. Obs....	1856	...	6.0

From which there appears to be no evidence of P.M. Piazzi's determination is probably too small, and ours too great.

993. The B.A.C. place depends on Lacaille and Brisbane. Jacob confirms our place. There appears to be no P.M.

995. The N.P.D. of this Star, reduced to 1860 by Precession only, according to the authorities of the B.A.C. is as follows:

	° ' "		
Bradley	1755	112	55 13.9
Piazzi	1800	...	6.0
Taylor.....	1835	...	8.6

Bradley differing from us $+2'2$; Piazzi $-5'7$; and Taylor $-3'1$.

997. Our difference from B.A.C. arises partly from the adoption of a too small P.M.; and partly from our N.P.D. being too great. The N.P.D. according to the authorities of B.A.C. brought up to 1860 by Precession only, is as follows:

		°	'	"
Piazzi.....	1800 ...	83	38	9.8
Argelander.....	1830 ...			15.7
Taylor	1835 ...			16.7

Whence the P.M. = $+ 0''200$, which is identical with Argelander's value. Applying it, we have the N.P.D. for 1860 as follows:

		°	'	"
Piazzi		83	38	21.8
Argelander				21.7
Taylor				21.7
Radc. Obs.				23.9

Bradley did not observe this Star in N.P.D.

998. Rejecting P.M. Taylor's N.P.D. is identical with ours.

1000. Rejecting P.M. Taylor's R.A. differs $+ 0^s.16$; Piazzi's $- 1^s.04$. Possibly there is a mistake of 1^s in Piazzi's place.

1002. The adopted P.M. from B.A.C. appears to be too great. Reduced by Precession only to 1860, we have the following N.P.D.

		°	'	"
Piazzi	1800 ...	114	52	29.7
Argelander ...	1830 ...			31.4
Taylor	1835 ...			31.2
Radc. Obs. ...	1856 ...			32.8

Whence the P.M. = $+ 0''054$; which being applied, we have the N.P.D. 1860,

		°	'	"
Piazzi		114	52	32.9
Argelander				33.0
Taylor				32.6
Radc. Obs.....				33.0

Argelander's P.M. = $+ 0''036$.

1003. Rejecting P.M. Piazzi's R.A. differs $+ 0^s.12$; Taylor $- 0^s.48$.

1006. The great P.M. ascribed to this Star, both by Argelander and the B.A.C. arises I believe from a mistake of $+ 10^s$ in Piazzi's place.

Reduced to 1860 by Precession only, the N.P.D. according to different authorities is as follows:

	°	'	"
Piazzi..... 1800 ...	33	6	(29.2)
Groombridge... 1808.5			19.2
Argclander 1830 ...			17.4
Taylor 1835 ...			16.6
Rade. Obs..... 1846 ...			16.5
..... 1856.6			17.4

Possibly there is a small *minus* P.M. but the above results will hardly justify its adoption.

1009. The difference in the R.A. of this Star arises from the adoption by the B.A.C. of a P.M. = $-0^{\circ}.055$, which Mr. Main has corrected, and made $+0^{\circ}.009$. The R.A. according to different authorities, reduced to 1860 by Precession only, is as follows:

	h.	m.	s.
Bradley 1755 ...	17	0	26.61
Piazzi 1800 ...			24.37
Taylor 1835 ...			25.72
Greenwich 1840 ...			27.03
Rade. Obs. ... 1842 ...			26.63
Greenwich 1845 ...			27.32
..... 1850 ...			27.04
Rade. Obs. ... 1856 ...			26.94

From which it appears that there is no appreciable P.M. According to Mædler, Piazzi's R.A. should be increased 1.6 in this parallel.

1012. Rejecting P.M. Piazzi's R.A. differs $-0^{\circ}.76$; Taylor's $+0^{\circ}.22$.
 1018. Rejecting P.M. Bradley's R.A. differs $+0^{\circ}.42$. Jacob confirms our place both in R.A. and N.P.D.
 1028. Rejecting P.M. Piazzi's R.A. differs $-0^{\circ}.75$; Taylor's $+0^{\circ}.16$.
 1030. Rejecting P.M. Piazzi's R.A. is identical with ours; Taylor's differs $+1^{\circ}.18$ (probably through a mistake of 1^s). We have the following N.P.D. reduced by Precession only to 1860.

Piazzi 1800 ...	114	57	28.3
Taylor 1835 ...			30.1
Rade. Obs. 1856 ...			31.2

Which give a P.M. = $+0^{\circ}.051$. This being applied, the N.P.D. for 1860 is, by

	°	'	"
Piazzi	114	57	31.4
Taylor			31.4
Rade. Obs.....			31.4

1032. Rejecting P.M. Piazzi's R.A. differs $- 0^s.37$; Taylor's $+ 0^s.48$.

1033. The B.A.C. place of this Star depends altogether on Lacaille and Brisbane. Jacob's R.A. differs $- 0^s.20$.

1037. The N.P.D. for 1860 of this Star, brought up by Precession only, is as follows :

	°	'	"
Piazzi	1800	119 35	51.5
Taylor	1835		53.9
Radc. Obs. ...	1857		56.4

Whence P.M. = $+ 0^s.084$ which being applied, the N.P.D. for 1860 becomes

	°	'	"
Piazzi	119	35	56.5
Taylor			56.0
Radc. Obs.....			56.7

1038. Rejecting P.M. Bradley's R.A. differs $+ 0^s.30$; Jacob's $- 0^s.27$. Jacob's N.P.D. is almost identical with ours.

1045. The P.M. in N.P.D. appears to be much greater than that ascribed to it in B.A.C. We have the following places, reduced to 1860 by Precession only,

	°	'	"
Piazzi	1800	28 0	33.2
Groombridge...	1810		38.8
Taylor	1835		48.5
Radc. Obs.....	1848		59.4
.....	1857		64.1

Whence the P.M. = $+ 0^s.543$; which being applied, we have the N P.D. for 1860,

	°	'	"
Piazzi	28	1	5.8
Groombridge			5.9
Taylor			2.4
Radc. Obs.			5.9
.....			5.9

1046. There appears to be no P.M. in R.A. in this Star; Groombridge, Taylor, and a former determination of our own, confirm the present result. Piazzi differs $- 0^s.64$.

1053. Rejecting P.M. Piazzi's R.A. differs $- 0^s.34$; Taylor's $+ 0^s.15$.

- 1054 There appears to be a mistake of — 20" in Taylor's N.P.D. Reduced to 1860 by Precession only, we have the following N.P.D.

Bradley	1755 ...	64° 19' 36.6"
Piazzi	1800 ...	37.1
Taylor	1835 ...	(20.4)
Rade. Obs.....	1857 ...	40.1

Omitting Taylor, the P.M. from the above is + 0".035; which being applied, we have N.P.D. 1860,

Bradley	64° 19' 40.3"
Piazzi	39.2
Rade. Obs.	40.2

1058. The adopted P.M. in N.P.D. from B.A.C. is too great. The N.P.D. reduced to 1860 by Precession only, is,

Piazzi	1800 ...	114° 51' 15.6"
Taylor	1835 ...	17.2
Rade. Obs. ...	1857 ...	18.9

Whence the P.M. = + 0".057; which being applied, the N.P.D. for 1860 becomes,

Piazzi	114° 51' 19.0"
Taylor	18.6
Rade. Obs.....	19.1

1061. The N.P.D. of this Star, according to different Observers, is very discordant. Reduced to 1860 by Precession only, we have,

Mayer	1756 ...	111° 55' (15.6)"
Piazzi	1800 ...	35.5
Taylor	1835 ...	30.1
Rade. Obs. ...	1856.6	41.0

Omitting Mayer, we deduce from the rest a P.M. + 0".073; which being applied, we have N.P.D. 1860,

Piazzi	111° 55' 39.9"
Taylor	31.8
Rade. Obs.....	41.2

Supposing a mistake of — 10" in Taylor, (who has only one observation of the Star,) we then have a P.M. = + 0".099, which makes the N.P.D.

Piazzi	111° 55' 41.4"
Taylor	42.6
Rade. Obs.....	41.3

Our own N.P.D. it will be perceived, depends also on a single observation, but a subsequent determination in 1857 confirms it within a small quantity.

1074. The N.P.D. of this Star for 1860, brought up by Precession only, is as follows:

Piazzi	1800 ...	116°	$6'$	$54''.9$
Taylor	1835 ...		$7'$	6.0
Radc. Obs. ...	1856.6		$7'$	14.3

Whence the P.M. = $+ 0''338$; which being applied, we have the N.P.D. for 1860,

Piazzi	116°	$7'$	$15''.2$
Taylor			14.6
Radc. Obs.			15.4

1099. Rejecting P.M. we have the following R.A. of this for 1860,

		h.	m.	s.
Bradley	1755 ...	18	30	40.48
Piazzi	1800 ...			40.23
Taylor	1835 ...			40.22
Greenwich ...	1843 ...			40.33
Radc. Obs. ...	1852 ...			40.47
.....	1855.7			40.40

From which there appears to be no appreciable P.M. The B.A.C. adopts — $0^s.006$; that in the text is Mr. Main's.

1102. The R.A. of this Star in B.A.C. depends on Groombridge, whose R.A. in this parallel, according to Mædler and Fedorenko, is generally about $0^s.3$ too small. We have the following determinations of R.A.

		h.	m.	s.
Groombridge	1809.2 ...	18	35	46.57
Radc. Obs.	1847.0 ...			47.32
Jacob	1851.3 ...			46.75
Radc. Obs.	1856.6 ...			47.11

The N.P.D. according to different authorities, is as follows:

Bradley	1755 ...	34°	$53'$	$(19''.9)$
Groombridge	1810.0 ...		$53'$	2.8
Radc. Obs.	1845.6 ...		$52'$	59.8
Jacob	1851.3 ...			59.4
Radc. Obs.	1856.6 ...			59.0

Omitting Bradley, we deduce from the remainder a P.M. = — $0''082$; which being applied, the N.P.D. for 1860 is,

Bradley	34°	$53'$	$(11''.3)$
Groombridge		$52'$	58.7
Radc. Obs.			58.6
Jacob			58.7
Radc. Obs.			58.7

Possibly there may be an error of $+ 10''$ in Bradley's place. He has only one observation.

1103. The P.M. ascribed to this Star is certainly too great. Rejecting it, the N.P.D. 1860 is, by

Piazzì.....	1800	115	8	45.1
Taylor	1835			50.3
Radc. Obs.....	1855.6 ...			49.8

Whence P.M. = $+0^{\circ}090$, which being applied, we have N.P.D. 1860 by

Piazzì.....	115	8	50.5
Taylor			52.5
Radc. Obs....			50.2

1106. The adopted P.M. from B.A.C. is probably too great. The N.P.D. reduced to 1860 by Precession only, is,

Piazzì	1800 ...	110	25	16.0
Taylor	1835 ...			19.1
Radc. Obs. ...	1856.6			19.9

Whence the P.M. = $+0^{\circ}070$; which being applied, the N.P.D. in 1860 is,

Piazzì	110	25	26.2
Taylor			20.9
Radc. Obs.....			20.1

1117. The N.P.D. of this Star, reduced to 1860 by Precession only, is as follows:

Bradley	1755 ...	14	44	5.8
Piazzì	1800 ...			2.4
Groombridge...	1810 ...			4.1
Taylor	1835 ...			0.6
Radc. Obs.....	1845 ...			1.4
.....	1854.7			0.8

Whence the P.M. = $-0^{\circ}051$; which being applied, the N.P.D. 1860 is,

Bradley	14	44	0.4
Piazzì	43	59.3	
Groombridge	44	1.5	
Taylor	43	59.3	
Radc. Obs.	44	0.6	
.....	44	0.5	

1118. The R.A. in B.A.C. depends on 3 observations of Lalande, the extreme values of which differ more than $1'$ from each other. This Star has been observed by Captain Jacob, and we have the following R.A. reduced to 1860 by Precession only,

	h.	m.	s.
Lalande	18	51	45.82
Jacob			46.48
Radc. Obs.	18	55.3	46.61

Whence the P.M. = $+0^{\circ}.0139$; which being applied, the R.A. for 1860 is,

	h.	m.	s.
Lalande.....	18	51	46.65
Jacob.....			46.61
Radc. Obs.....			46.68

In N.P.D. it was observed also by Bradley, and brought up by Precession, we have the N.P.D. for 1860 as follows :

Bradley	1755 ...	$0^{\circ} 16' 15.9''$
Lalande	1800 ...	23.0
Jacob.....	1850.5	32.1
Radc. Obs.....	1856 ...	32.3

These values give a P.M. = $+0^{\circ}.163$; which being applied, we have the N.P.D. 1860,

	0°	$'$	$''$
Bradley	57	16	33.1
Lalande			32.8
Jacob			33.6
Radc. Obs.			33.0

1121. The adopted P.M. from B.A.C. appears to be too great. The N.P.D. reduced to 1860 by Precession only is,

Piazzi	1800 ...	$11^{\circ} 1' 56.5''$
Taylor	1835 ...	2 3.9
Radc. Obs.	1856.6	2 8.9

Whence the P.M. = $+0^{\circ}.215$, which makes the N.P.D. 1860,

Piazzi	115	$2^{\circ} 9.4''$
Taylor		9.3
Radc. Obs.		9.6

1122. The R.A. 1860 (without P.M. and increasing Piazzi and Groombridge $0^{\circ}.20$) is

	h.	m.	s.
Piazzi.....	1800	18 57	28.56
Groombridge...	1810.7 ...		28.52
Taylor	1835		28.72
Radc. Obs.....	1842		28.69
.....	1854.6 ...		28.63

From which it appears that there is no appreciable P.M.

1127. The R.A. of this Star in B.A.C. does not agree with that brought up from Bailey's Lalande. (*For* $18^{\text{h}} 59^{\text{m}} 49^{\text{s}}.37$, *read* $19^{\text{h}} 0^{\text{m}} 22^{\text{s}}.87$.) The latter place, reduced to 1860, differs only $-0^{\circ}.33$ from ours. The N.P.D. brought up by Precession only is, by

Bradley	1755 ...	$65^{\circ} 57' 51.2''$
Lalande	1800 ...	44.6
Radc. Obs.....	1854.7	48.8

1130. Rejecting P.M. Piazzi's N.P.D. differs $-1''.4$; Taylor's $+2''.2$.

1131. Rejecting P.M. Bradley's and Taylor's N.P.D. are identical, and differ $+1''.0$ from ours; Lalande differs $-6''.0$.

1134. Rejecting P.M. the N.P.D. of this Star for 1860 is,

		°	'	"
Bradley	1755 ...	89	54	44.7
Piazzi	1800 ...			44.4
Taylor	1835 ...			47.2
Radc. Obs.....	1855.7			47.1

Whence the P.M. $= +0''.029$; which being applied, the N.P.D. for 1860 is,

		°	'	"
Bradley		89	54	47.7
Piazzi				46.1
Taylor				47.9
Radc. Obs.				47.2

1136. Rejecting P.M. the R.A. of this Star for 1860, according to different authorities, is,

			h.	m.	s.
Bradley	1755 ...	19	14	15.73	
Piazzi	1800 ...			14.64	
Taylor	1835 ...			15.34	
Greenwich ...	1845 ...			16.25	
Radc. Obs. ...	1848.2			15.70	
.....	1856.7			15.86	

From which it does not appear that there is any appreciable P.M.

1137. Rejecting P.M. the N.P.D. for 1860 of this Star is,

		°	'	"
Bradley	1755 ...	114	46	30.9
Piazzi	1800 ...			30.0
Taylor	1835 ...			33.8
Greenwich	1840 ...			33.4
Radc. Obs. ...	1856.6			34.8

Whence the P.M. $= +0''.042$; which being applied, the N.P.D. 1860 is as follows:

		°	'	"
Bradley		114	46	35.3
Piazzi				32.5
Taylor				34.8
Greenwich.....				34.2
Radc. Obs.....				34.9

1139. Rejecting P.M. the N.P.D. of this Star for 1860 is, by

	⁰	[']	["]
Bradley	1755	78 22	17.1
Piazzi	1800	21	43.0
Argelander	1830		26.2
Taylor	1835		22.7
Radc. Obs.	1854.7		12.9

Which give a P.M. — $0^{\circ}646$, agreeing nearly with that given in the text, and with Argelander. Applying it, we have N.P.D. for 1860, by

	⁰	[']	["]
Bradley	78 21		9.3
Piazzi			4.2
Argelander			6.4
Taylor			6.5
Radc. Obs.			9.5

The differences are greater than might be expected, especially in the case of Piazzi. If his place be omitted, the remainder gives a P.M. of — $0^{\circ}656$, differing very little from the above. But if we reject Bradley, we deduce then a P.M. of — $0^{\circ}551$; which being applied, the N.P.D. for 1860 becomes, by

	⁰	[']	["]
Bradley	78 21		(19.2)
Piazzi			10.0
Argelander			9.7
Taylor			8.9
Radc. Obs.			10.0

Hence it appears probable, that there is a mistake of $+10^{\circ}$ in Bradley's place. Admitting this to be the case, the P.M. resulting from a comparison of all the authorities, gives the P.M. — $0^{\circ}545$; which being applied, we have N.P.D. 1860,

	⁰	[']	["]
Bradley	78 21		9.9
Piazzi			10.3
Argelander			9.8
Taylor			9.1
Radc. Obs.			10.0

Runkler observed this Star in 1838, and his N.P.D. for the beginning of that year is $78^{\circ}24'49''1$, which, reduced to 1860, with the above P.M. becomes $78^{\circ}21'10''3$, agreeing very nearly with the places given above.

1140. This Star (δ Aquilæ) is, I believe, another instance of P.M. having been introduced, on account of a mistake of $+10^{\circ}$ in Bradley's

Catalogue. Reduced by Precession only, its N.P.D. 1860 is as follows :

Bradley	1755 ...	87° 9' 51".5
Piazzi	1800 ...	42.8
Argelander	1830 ...	41.8
Taylor	1835 ...	42.6
Greenwich.....	1839 ...	42.8
.....	1844 ...	41.8
.....	1851 ...	41.5
Rade. Obs.....	1856.6	40.2

It will be perceived, that between 1755 and 1800, an interval of 45 years, there is a change of $-8''.7$; while from 1800 to 1851 the change is only $-1''.3$. Taking Bradley's place as it stands above, the P.M. will not materially differ from that in the text, which is Mr. Main's. Supposing him to be $+10''$ in error, that is, that the seconds of N.P.D. should be $41''.5$, then the P.M. is $-0''.005$. Omitting him altogether, the P.M. from the remainder is $-0''.035$. On these several hypotheses we have N.P.D. 1860,

	P.M. $-0''.10$	$-0''.005$	$-0''.035$
	° ' "	"	"
Bradley	87 9 40.0	41.0	(47.8)
Piazzi	36.8	42.5	40.7
Argelander.....	38.8	41.6	40.7
Taylor	40.1	42.5	41.7
Greenwich 1839 ...	40.7	42.7	42.1
..... 1844 ...	40.3	41.7	41.2
..... 1851 ...	40.5	41.5	41.2
Rade. Obs. 1856.6...	39.9	40.2	40.1
Mean	87 9 39.6	41.7	41.1

The sum of the squares of the errors on the *first* hypothesis is 11.49; on the *second* 5.07.

1141. The place of this Star, (No. 36698 of Bailey's Lalande,) brought up to 1860 by Precession only, is,

R.A.	19 ^h 19 ^m 16 ^s .21
N.P.D.....	70° 0' 4''.7

Which agrees nearly with that in the text. The R.A. in B.A.C. does not agree with the above. Jacob's place in R.A. and N.P.D. agrees very nearly with ours.

1144. Rejecting P.M. Taylor's R.A. differs $+ 0^{\circ}.36$.

1150. Rejecting P.M. the N.P.D. for 1860 is,

	°	'	"
Bradley	1755	94	57 19.5
Piazzi	1800		17.8
Taylor	1835		22.6
Radc. Obs.....	1856.3		24.1

The P.M. from these places is $+ 0^{\circ}.050$, which makes the N.P.D. 1860,

	°	'	"
Bradley	94	57	24.8
Piazzi			20.8
Taylor			23.9
Radc. Obs.			24.3

1151. Rejecting P.M. we have the following N.P.D. for 1860,

	°	'	"
Piazzi	1800	39	3 34.3
Groombridge...	1813		35.2
Taylor	1835		39.8
Radc. Obs.....	1842		40.0
.....	1856.4		44.7

Which give a P.M. $= + 0^{\circ}.182$. Applying this, we have N.P.D. 1860,

	°	'	"
Piazzi	39	3	45.2
Groombridge			43.8
Taylor			44.4
Radc. Obs.			43.3
.....			45.4

1153. Rejecting P.M. we have the following N.P.D. for 1860,

	°	'	"
Bradley	1755	20	31 29.3
Piazzi	1800		32 51.6
Groombridge...	1807.5	33	5.3
Argelander	1830		44.2
Taylor	1835		54.2
Radc. Obs.....	1843.2	34	7.0
Greenwich.....	1845		10.0
Radc. Obs.....	1854.7		27.9

Whence P.M. = $+1^{\circ}786$; which agrees with Mr. Main's value in the text, and is nearly the same as Argelander's. Applying it, we have N.P.D. for 1860,

	$^{\circ}$	$'$	$''$
Bradley	20	34	36.8
Piazzi			38.8
Groombridge			39.1
Argelander			37.8
Taylor.....			39.0
Rade. Obs.			37.0
Greenwich			36.8
Rade. Obs.			37.4

1157. Rejecting P.M. Taylor's R.A. is almost identical with ours; and his N.P.D. differs only $+0^{\circ}6$.

1169. Adopting his own P.M. ($+0^{\circ}389$), Argelander's N.P.D. agrees very nearly with ours.

1176. Rejecting P.M. Taylor's N.P.D. is identical with ours.

1179. Rejecting P.M. the N.P.D. for 1860 is,

	$^{\circ}$	$'$	$''$
Bradley	1755	73	35 11.2
Lalande.....	1800		2.2
Piazzi	1800		3.3
Taylor	1835		6.0
Rade. Obs.....	1855		7.7

The adopted P.M. = $-0^{\circ}11$ from B.A.C. appears to have been deduced from comparison of Taylor with Bradley, who is inconsistent with Lalande and Piazzi. Omitting Bradley's N.P.D. the P.M. from the rest is $+0^{\circ}090$; which, being applied, we have N.P.D. 1860,

	$^{\circ}$	$'$	$''$
Bradley	73	35	(20.7)
Lalande			7.6
Piazzi.....			8.7
Taylor.....			8.3
Rade. Obs.....			8.2

1183. The R.A. in B.A.C. is wrong. Reduced to 1860 by Precession only, the R.A. is by

	h.	m.	s.
Bradley	19	54	47.16
Piazzi			46.98
Taylor			47.16
Rade. Obs.....			47.14

1184. Rejecting P.M. Piazzi's N.P.D. differs $+0^{\circ}3$; Taylor's $-1^{\circ}2$.

1186. Rejecting P.M. Piazzi's N.P.D. differs $-1^{\circ}5$; Taylor's $+7^{\circ}4$.

1187. We have the following N.P.D. of this Star, reduced to 1860 by Precession only.

	°	'	"
Bradley	1755	73	17 44.8
Piazzi	1800		55.3
Argelander.....	1830		70.6
Taylor	1835		72.6
Radc. Obs.....	1855.2		82.8

From these places the resulting P.M. = $+0''381$. But this value does not reconcile the intermediate determinations, particularly Piazzi's. Omitting Piazzi, we obtain P.M. = $+0''367$. Still the agreement is not satisfactory. Omitting Bradley, P.M. becomes $+0''499$. The results under these several hypotheses are as follows :

	P.M. = $+0''381$	$+0''367$	$+0''499$
	° ' "		
Bradley	73 18 24.8	23.3	(37.2)
Piazzi	18.2	17.5	25.2
Argelander	22.0	21.6	25.6
Taylor	22.1	21.8	25.1
Radc. Obs.....	24.6	24.6	25.2

1194. Rejecting P.M. the N.P.D. for 1860 is as follows :

	°	'	"
Piazzi	1800	109	47 4.8
Taylor	1835		9.9
Radc. Obs....	1855.6		12.8

Whence P.M. = $+0''145$; which being applied, we have N.P.D 1860,

	°	'	"
Piazzi	109	47	13.5
Taylor			13.5
Radc. Obs.....			13.4

1195. The N.P.D. for 1860, brought up by Precession only, is,

	°	'	"
Bradley	1755	103	1 6.9
Piazzi	1800		12.5
Taylor	1835		22.7
Radc. Obs. ...	1854.6		28.1

Whence P.M. $+0''215$. Applying this value, we have the N.P.D.

	°	'	"
Bradley	103	1	29.5
Piazzi			25.4
Taylor			28.1
Radc. Obs.....			29.3

M*

Omitting Bradley, P.M. = $+0''284$; and with this value, R.A. 1860 is

	⁰	[']	["]
Bradley	103	1	(36.7)
Piazzi.....			29.5
Taylor			29.8
Radc. Obs.....			29.6

1196. We have the following N.P.D. of this Star, reduced to 1860 by Precession only.

	⁰	[']	["]
Bradley	1755	69	16 51.7
Lalande	1800		44.7
Jacob.....	1849.7		47.9
Radc. Obs.....	1854.7		47.0

Which give P M. = $-0''032$. That adopted in the text from B.A.C. it will be perceived, is much greater.

1202. The place of this Star, reduced to 1860 by Precession only, is,

R.A.			N.P.D.		
	h.	m. s.		⁰	['] ["]
Bradley	20	10 ...	1755 ...	29	47 17.4
Lalande	1790	52.50	1790 ...		16.5
Piazzi.....	1800	51.95	1800 ...		14.1
Groombridge	1809.6	52.45	1809.6		16.0
Taylor	1835	53.06	1835 ...		14.2
Radc. Obs....	1850.4	52.89	1843.6		14.1
.....	1856.6	53.00	1856.3		12.8

P.M. in R.A., if any, must be very small. Piazzi is the authority on which that given in the text (from B.A.C.) depends. But Piazzi is inconsistent with Lalande (Fedorenko 3406) and with Groombridge. Moreover, his and Groombridge's R.A., according to Maedler and Fedorenko, in this position are to be increased about $0''.40$.

P.M. in N.P.D. from the preceding places is $-0''041$; which being applied, we have N.P.D. 1860,

	⁰	[']	["]
Bradley	29	47	13.1
Lalande			13.6
Piazzi			11.6
Groombridge			13.9
Taylor			13.2
Radc. Obs.			13.4
.....			12.6

1206. Jacob confirms our place both in R.A. and N.P.D. Lalande's R.A. (rejecting P.M.) differs $- 0^s.70$, Bradley's $+ 0^s.10$.

1207. Rejecting P.M. Piazz's R.A. differs $+ 0^s.05$; Taylor's $+ 0^s.28$. The N.P.D. 1860 are as follows:

Piazz	.....	1800 ...	104	42	5.9
Taylor	.....	1835 ...			7.8
Radc. Obs.	....	1854.7			8.0

Whence P.M. $= + 0^m.040$; which being applied, we have N.P.D. 1860,

Piazz	.....	104	42	8.3
Taylor	.....			8.8
Radc. Obs.	.....			8.2

1209. The following are the N.P.D.'s, according to several authorities, reduced by Precession only to 1860,

Bradley	.....	1755 ...	108	40	5.2
Piazz	.....	1800 ...			0.9
Johnson	.....	1830 ...			4.1
Taylor	.....	1835 ...			3.5
Greenwich	....	1840 ...			3.7
.....	.....	1845 ...			2.7
Radc. Obs.	...	1854.7			5.5

From which there does not appear to be any appreciable P.M.; but our own place is somewhat in excess.

1214. The place of this Star, reduced to 1860 by Precession only, is,

R.A.				N.P.D.			
	h.	m.	s.		°	'	"
Lalande	1790 ...	20 21 7.61	1790	.....	28 11 14.0	
Piazz	1800 ...	7.28	1800	.....	20.1	
Taylor	1835 ...	7.24	1835	.....	15.1	
Radc. Obs.	...	1848.7	7.76	1848.3	....	12.9	
.....	1856.7	8.02	1856.6	....	12.0	

The R.A.'s are obviously too uncertain for determining P.M.

In N.P.D. the above places give P.M. $= - 0^m.067$; or, omitting Lalande, $- 0^m.145$; which being applied we have N.P.D. 1860,

P.M. $- 0^m.067$				$- 0^m.145$			
	°	'	"		°	'	"
Lalande	.....	28 11 9.3		(3.8)			
Piazz	.....	16.1		11.9			
Taylor	.....	13.5		11.5			
Radc. Obs.	...	12.1		11.2			
.....	.....	11.8		11.5			

1220. Rejecting P.M. Piazzi's R.A. differs $+ 0^{\circ}.06$, and Taylor's $+ 0^{\circ}.19$.

1221. Rejecting P.M. Piazzi's N.P.D. differs $- 5''6$; Taylor's is identical with ours.

1222. Rejecting P.M. the N.P.D. for 1860 are,

Piazzi.....	1800	$112^{\circ} 42'$	$3.3''$
Taylor	1835		8.6
Radc. Obs.	1854.7 ...		11.2

Hence P.M. = $+ 0^{\circ}144$, which being applied makes N.P.D. by

Piazzi.....	$112^{\circ} 42'$	$11.9''$
Taylor		12.2
Radc. Obs.		12.0

1223. Rejecting P.M. the N.P.D. for 1860 are,

Bradley	1755	$22^{\circ} 41'$	$56.1''$
Piazzi	1800		56.4
Taylor	1835		52.7
Radc. Obs..	1856.5 ...		57.3

From which there appears no appreciable P.M.

1226. Rejecting P.M. we have the following places for 1860;

R.A.				N.P.D.			
h. m. s.				$^{\circ} \quad ' \quad ''$			
Bradley	1755	20 30	8.08	1755	$64^{\circ} 36'$		5.1
Piazzi	1800		7.94	1800			2.6
Taylor	1835		8.71	1835			4.4
Radc. Obs..	1856.7 ...		8.28	1854.6 ...			2.0

Whence it is very doubtful whether there is any P.M.

1232. The N.P.D. in B.A.C. depends altogether on Lalande.

1247. Rejecting P.M. the N.P.D. reduced to 1860 is, by

Bradley	1755	$77^{\circ} 58'$	$43.6''$
Piazzi	1800		36.0
Taylor	1835		34.3
Radc. Obs..	1854.9 ...		35.0

The large P.M. in the text, from B.A.C. was derived from comparison of an uncorrected place of Taylor with Bradley's, which appears to be wrong.

1251. Rejecting P.M. we have the following places of this Star for 1860.
Groombridge's R.A. has been increased + 0.32, according to
Mædler and Fedorenko.

R.A.				N.P.D.			
	h. m. s.				° ' "		
Piazzi.....	1800	.....	20 19 18.78	1800	.....	36 1 17.3	
Groombridge.	1814.8	...	18.70	1814.8	...	17.2	
Taylor.....	1835	.....	18.41	1835	.....	9.4	
Radc. Obs. ...	1848.1	...	18.36	1849.4	...	10.2	
.....	1856.7	...	18.22	1855.9	...	8.6	

Hence P.M. in R.A. = - 0.0101; in N.P.D. = 0"172; which being
applied, we have the places for 1860,

R.A.				N.P.D.			
	h. m. s.				° ' "		
Piazzi.....	20	49	18.17	36	1	7.0	
Groombridge.			18.25			9.4	
Taylor.....			18.16			5.1	
Radc. Obs. ...			18.25			8.4	
.....			18.18			7.9	

1252. This is No. 40581 of Bailey's Lalande, and its place, brought up
from that Catalogue, does not agree with that given in B.A.C.
We have the following places reduced by Precession only to 1860.

R.A.				N.P.D.			
	h. m. s.				° ' "		
Bradley.....	20	51	...	1755	.....	43 7 7.4	
Lalande.....	1800	.....	6.48	1800	.....	6 58.3	
Jacob.....	1849.7	...	5.83	1849.7	...	7 2.4	
Radc. Obs. ..	1850.5	...	6.23	1851.3	...	2.8	
.....	1854.7	...	6.17	1854.7	...	2.6	

Whence it appears, that the evidence is insufficient to establish P.M.

1253. Rejecting P.M. we have the following N.P.D. reduced to 1860;

Bradley.....	1755	.....	79 41 48.7
Piazzi.....	1800	.....	50.3
Taylor.....	1835	.....	53.9
Radc. Obs. .	1855.2	...	54.9

Whence P.M. = + 0"065; which being applied, the N.P.D. is,

Bradley.....	79 41 55.4
Piazzi.....	54.1
Taylor.....	55.5
Radc. Obs. .	55.2

1256. Rejecting P.M. Piazzi's R.A. differs — $0^{\circ}.32$; Taylor's + $0^{\circ}.39$.

1258. This is Bailey's Lalande 40679. Its place, according to different authorities brought up to 1860 by Precession only, is as follows:

R.A.				N.P.D.			
h. m. s.				° ' "			
Bradley	1755	.....	20 53 17.87	.....	46	4	...
Lalande	1800	.....	18.45	1800	.....	23.9	
Rade. Obs. ..	1848.0	...	18.55	1850.8	...	19.8	
Jacob	1850.6	...	18.34	1850.6	...	20.0	
Rade. Obs. ..	1855.7	...	18.88	1854.8	...	19.8	

From these places, P.M. in R.A. = + $0^{\circ}.0069$; in N.P.D. — $0^{\circ}.077$; and applying them, we obtain the following places for 1860;

R.A.				N.P.D.			
h. m. s.				° ' "			
Bradley	20	53	18.59	46	4	...	
Lalande			18.86			19.3	
Rade. Obs.			18.63			19.1	
Jacob			18.40			19.3	
Rade. Obs.			18.91			19.4	

Bradley has only *one* observation of R.A.

1259. The N.P.D. 1860 without P.M. is, by

				° ' "			
Piazzi.....	1800	.....	115 37	20.7			
Taylor	1835	.....		23.3			
Rade. Obs....	1856.7	...		24.4			

Whence P.M. = + $0^{\circ}.067$, which being applied, we have N.P.D. by

				° ' "			
Piazzi.....	115	37	24.7				
Taylor			25.0				
Rade. Obs....			24.6				

1274. There appears no evidence of P.M. in R.A. in this Star. We have the following places brought up to 1860 by Precession only.

				h. m. s.			
Groombridge ...	1809.9	.....	21	9	13.39		
Taylor.....	1835	.....			13.47		
Rade. Obs.	1846.2	.....			13.35		
.....	1856.7	.....			13.31		

Groombridge's R.A. has been increased $0^{\circ}.44$, which is a mean of the corrections given by Mædler and Fedorenko.

1280. The N.P.D.'s brought up to 1860 by Precession only are,

Piazzi.....	1830	⁰ 115	¹ 1	⁸ 6.8
Taylor.....	1835			8.0
Radc. Obs.	1854.8 ...			9.0

Whence P.M. = + 0".039; which being applied, we have N.P.D. 1860,

Piazzi.....	⁰ 115	¹ 1	⁸ 9.1
Taylor.....			9.0
Radc. Obs.			9.2

1281. Rejecting P.M. we have the following R.A. of this Star for 1860; after adding 1^s.07 to Piazzi's and 0^s.57 to Groombridge's places.

		h.	m.	s.
Piazzi.....	1800	21	17	9.06
Groombridge...	1809.8 ...			9.73
Taylor.....	1835			9.85
Radc. Obs.....	1847.2 ...			10.17
.....	1856.7 ...			9.86

Whence P.M. = + 0^s.0135; which being applied, the R.A. 1860 is, by

	h.	m.	s.
Piazzi.....	21	17	9.87
Groombridge ...			10.41
Taylor			10.18
Radc. Obs.....			10.34
.....			9.90

1285. The N.P.D.'s of this Star reduced to 1860, by Precession only, are as follows:

Bradley	1755	⁰ 112	²⁴ 4	⁸ 51.2
Piazzi.....	1800			47.2
Taylor.....	1835			51.0
Rümker.....	1842			53.2
Radc. Obs. ..	1854.7 ...			52.2

Hence the evidence for P.M. is insufficient.

1286. Rejecting P.M. Piazzi's R.A. differs — 0^s.23; Taylor's + 0^s.39.

1287. Rejecting P.M. and adding 0^s.33 and 0^s.31 to Piazzi and Groombridge, respectively, on the authority of Mædler and Fedorenko, we have the following R.A.'s of this Star reduced to 1860:

		h.	m.	s.
Piazzi.....	1800	21	22	7.26
Groombridge	1812.8 ...			8.28
Taylor.....	1835			8.22
Radc. Obs....	1845.8 ...			8.00
.....	1854.6 ...			7.95

From which it appears that Piazzi is — 1^s in error. Otherwise there may be a small P.M. of about — 0^s.0079.

1290. We have the following N.P.D. of this Star, brought up to 1860 by Precession only.

Groombridge..	1807.8 ...	6	20	10.5
Radc. Obs.	1847.8 ...			10.1
.....	1856.7 ...			10.4

Which indicate no P.M.

1292. The N.P.D. for 1860 of this Star, brought up by Precession only, is as follows :

Piazzi	1800 ...	0	48	45.2
Taylor	1835 ...			52.2
Radc. Obs. ...	1855.7			51.0

Therefore no satisfactory result can be deduced relative to P.M.

1296. The N.P.D. reduced to 1860 by Precession only is,

Piazzi.....	1800 ...	31	11	62.7
Taylor	1835 ...			59.4
Radc. Obs.....	1848.1			60.8
.....	1856.8			62.8

Hence it appears that there is no P.M.

1298. We have the following R.A. for 1860 brought up by Precession, and 0^s.70 added to Groombridge.

		h.	m.	s.
Groombridge	1809.7 ...	21	28	47.38
Radc. Obs.	1851.8 ...			49.28
.....	1854.7 ...			49.74

Whence P.M. = + 0^s.0493 ; which being applied, the N.P.D. by

		h.	m.	s.
Groombridge.....		21	28	49.86
Radc. Obs.				49.68
.....				50.00

1300. We have the following N.P.D.'s of this Star, reduced by Precession only to 1860,

		0	5	27.5
Bradley	1755	110		
Piazzi.....	1800			25.5
Johnson.....	1830			27.7
Taylor	1835			28.7
Greenwich ...	1840			27.7
.....	1847			28.4
.....	1853.7 ...			28.7
Radc. Obs....	1854.8 ...			31.3

Whence P.M. = $+ 0^{\circ}030$; which being applied, we have,

Bradley	$110^{\circ} 5' 30.7''$
Piazzi	27.3
Johnson	28.6
Taylor	29.5
Greenwich ...	28.3
.....	28.8
.....	28.9
Radc. Obs....	31.5

The sum of the squares of the errors, neglecting P.M. is 18.43;
admitting it, 11.05.

1302. We have the following N.P.D. brought up by Precession only to 1860,

Bradley	1755	$71^{\circ} 18' 38.0''$
Piazzi	1800	32.5
Taylor	1835	32.8
Rümker	1842.7 ...	35.4
Radc. Obs. .	1855.7 ...	36.3

This is another instance of discordance between Bradley and Piazzi.

Omitting Bradley, we find P.M. = $+ 0^{\circ}069$; which being applied,
we have N.P.D. 1860,

Bradley	$71^{\circ} 18' 45.2''$
Piazzi	36.6
Taylor	34.5
Rümker	36.6
Radc. Obs.	36.6

Admitting P.M. the sum of the squares of the errors is 3.64;
rejecting it, the sum is 10.70.

1304. Rejecting P.M. the place of this Star is as follows:

R.A.				N.P.D.		
	h.	m.	s.			
Bradley	1755	21 32	17.33	1755	90 40	55.3
Piazzi	1800		17.42	1800		53.6
Taylor	1835		18.34	1835		58.3
Radc. Obs.	1856.8		18.06	1855.6		55.6

The agreement in R.A. is not satisfactory; but the results seem to
leave no doubt of the existence of P.M. The amount is $+ 0^{\circ}.0093$;
which being applied, we have the R.A. 1860,

	h.	m.	s.
Bradley	21	32	18.31
Piazzi			17.98
Taylor			18.57
Radc. Obs....			18.09

It does not appear that there is any P.M. in N.P.D.

1305. The N.P.D. of this Star, reduced to 1860, is as follows:

		°	'	"
Piazzi	1800	28	19	54.6
Groombridge..	1811.9 ...			54.0
Taylor	1835			48.7
Radc. Obs....	1850.8 ...			49.6
.....	1856.7 ...			48.6

Whence P.M. — $0^{\circ}110$; which being applied, we have N.P.D. 1860,

	°	'	"
Piazzi	28	19	48.0
Groombridge .			48.7
Taylor			45.9
Radc. Obs....			48.6
.....			48.2

1308. The place of this Star, reduced to 1860 by Precession only, is,

		R.A.				N.P.D.		
		h.	m.	s.		°	'	"
Bradley.....	1755	21	35	...	1755	79	48	43.9
Piazzi	1800			42.44	1800			41.1
Taylor.....	1835			42.89	1835			44.3
Radc. Obs....	1856.7 ...			42.49	1856.7 ...			42.9

From which it does not appear that there is any P.M.

1309. We have the following N.P.D.'s, reduced to 1860 by Precession only,

		°	'	"
Piazzi.....	1800	105	23	15.7
Taylor.....	1835			20.9
Rümker...	1847			20.7
Radc. Obs.	1855.7 ...			19.4

It appears doubtful whether this Star has any P.M.

1317. We have the following N.P.D.'s:

		°	'	"
Piazzi	1800	65	3	35.4
Taylor	1836			35.8
Rümker	1843			40.1
Radc. Obs..	1854.0 ...			36.8

Which show that the P.M., if any, must be very small. Taylor's Declination in his General Catalogue is $20'$ too small.

1319. Rejecting P.M. both Piazzi's and Taylor's N.P.D. are nearly identical with ours.

1324. The N.P.D. of this Star, reduced to 1860 by Precession only, is,

Piazzi	1800	94	55	43.6
Taylor	1835			51.0
Radc. Obs. ....	.....			51.8

Whence P.M. = $+0^{\circ}156$; which being applied, the N.P.D. becomes,

Piazzi	94	55	53.0
Taylor			54.9
Radc. Obs.			52.5

1325. The N.P.D. reduced to 1860 by Precession only, is as follows:

Piazzi	1800	34	26	46.9
Groombridge ...	1808.7 ...			58.5
Taylor	1835			49.4
Radc. Obs.	1845.3 ...			48.3
.....	1856.2 ...			48.7

Probably there is a mistake of $+10''$ in Groombridge, otherwise there seems to be no indication of P.M.

1326. The R.A. reduced to 1860 by Precession, ($+0^{\circ}.37$ and $+0^{\circ}.31$ being applied to Piazzi and Groombridge, according to Mædler and Fedorenko,) is as follows:

		h.	m.	s.
Piazzi	1800	21	50	0.10
Groombridge ...	1813.7 ...			0.72
Taylor	1835			0.79
Radc. Obs.	1843.9 ...			0.90
.....	1851.1 ...			1.11

Whence P.M. = $+0^{\circ}.0176$; which being applied, the R.A. 1860 is,

	h.	m.	s.
Piazzi.....	21	50	1.16
Groombridge ...			1.53
Taylor			1.23
Radc. Obs.....			1.18
.....			1.18

1329. The R.A. for 1860, brought up by Precession, and Piazzi's place increased $0^{\circ}.39$, according to Mædler, is as follows:

		h.	m.	s.
Bradley	1755	21	54	40.68
Piazzi	1800			41.51
Taylor	1835			41.50
Radc. Obs.	1847.7 ...			41.76
.....	1856.8 ...			41.84

Whence P.M. = $+ 0^{\circ}.0104$; which being applied, the R.A. 1860 is,

	h.	m.	s.
Bradley	21	54	41.76
Piazzi.....			42.13
Taylor			41.76
Radc. Obs....			41.89
.....			41.87

1330. The R.A. 1860, brought up by Precession, and $0^{\circ}.33$ and $0^{\circ}.37$ added to Piazzi and Groombridge, is, according to

	h.	m.	s.
Piazzi..... 1800	21	56	43.23
Groombridge... 1808.8 ...			43.23
Taylor	1835	.....	43.58
Radc. Obs..... 1845.0 ...			43.01
..... 1854.7 ...			42.95

Whence P.M. = $- 0^{\circ}.0038$; which being applied, the R.A. 1860 is,

	h.	m.	s.
Piazzi.....	21	56	43.00
Groombridge...			43.04
Taylor			43.48
Radc. Obs.....			42.95
.....			42.93

1336. The R.A. reduced to 1860 by Precession, and $0^{\circ}.45$ added to Groombridge, is,

	h.	m.	s.
Bradley	1750	.....	21 59 41.90
Groombridge... 1809.9 ...			41.19
Radc. Obs..... 1846.7 ...			41.22
..... 1856.8 ...			41.39

The P.M. resulting from these places is $- 0^{\circ}.0054$; but it appears very doubtful. Bradley has only *one* observation.

1339. After increasing Piazzi's and Groombridge's R.A., respectively, $0^{\circ}.20$ and $0^{\circ}.27$, we have the following R.A. brought up by Precession to 1860,

	h.	m.	s.
Piazzi..... 1800	22	0	22.04
Groombridge... 1811.8 ...			21.91
Taylor	1835	.....	(21.07)
Radc. Obs..... 1847.7 ...			22.02
..... 1855.2 ...			22.04

Taylor is evidently $1''$ too small; the rest show no P.M.

1342. The P.M. in B.A.C. is deduced from comparison of Taylor and Brisbane with Lacaille. Rejecting it, Taylor's R.A. differs from ours $+ 0^s.12$; his N.P.D. $= 2''7$.

1343. The N.P.D. reduced by Precession only to 1860, is as follows:

Piazzi	1800	$94^{\circ} 34' 37''.1$
Taylor	1835	41.4
Rümker	1849	42.3
Radc. Obs..	1856.8 ...	41.6

Whence P.M. $= + 0^{\circ}088$; which being applied, N.P.D. 1860 is,

Piazzi	$94^{\circ} 34' 42''.4$
Taylor	43.6
Rümker	43.3
Radc. Obs. .	41.9

1348. This Star does not appear to have any P.M. in N.P.D. Its place in 1860, brought up by Precession, is

Piazzi	1800	$3^{\circ} 50' 2''.5$
Taylor	1835	0.7
Radc. Obs..	1846.8 ...	2.0
.....	1855.7 ...	2.6

1350. The N.P.D. 1860, without P.M. is, by

Piazzi	1800	$95^{\circ} 24' 30''.1$
Taylor	1835	31.3
Radc. Obs. ...	1856.8 ...	33.5

Whence P.M. $= + 0^{\circ}061$, which being applied, we have N.P.D. by

Piazzi	$95^{\circ} 24' 33''.8$
Taylor	32.8
Radc. Obs. ...	33.7

1352. The large P.M. in N.P.D. ascribed to this Star in B.A.C. appears to have been derived from comparison of Taylor with Bradley. Bessel mentions (*Fund. Astron. &c.* p. 267.) two observations of Bradley differing $30''$ from each other, and he has adopted that which gave the greatest N.P.D. This result is $67''$ greater than Piazzi's, instead of $7''$, as given by Bessel. Omitting Bradley, we have the following N.P.D. brought up by Precession to 1860,

Piazzi.....	1800	$118^{\circ} 27' 29''.1$
Taylor	1835	31.0
Radc. Obs.	1854.7 ...	33.9

Whence P.M. = $+ 0^{\circ}084$; which being applied, N.P.D. 1860 is, by

Piazzì.....	118	27	34.1
Taylor			33.1
Radc. Obs.			34.3

1355. The R.A. of this Star, according to different authorities, reduced by Precession to 1860, Groombridge being increased $0^{\circ}.56$, is as follows :

		h.	m.	s.
Groombridge ...	1809.7	22	7	27.16
Struve.....	1830.5			27.17
Radc. Obs.....	1847.8			26.85
Jacob	1850.4			26.41
Radc. Obs.	1856.8			26.33

Whence P.M. = $-0^{\circ}.0177$; which being applied, the R.A. 1860 is, by

		h.	m.	s.
Groombridge...		22	7	26.27
Struve				26.65
Radc. Obs.....				26.63
Jacob				26.24
Radc. Obs.....				26.27

1359. The R.A. of this Star, reduced to 1860 by Precession only, after increasing Piazzì and Groombridge $0^{\circ}.38$, is,

		h.	m.	s.
Piazzì.....	1800	22	11	22.98
Groombridge...	1812.8			23.55
Taylor.....	1835			23.62
Radc. Obs.....	1843.8			23.43
.....	1856.3			23.53

These places do not indicate any P.M.

1361. The N.P.D. reduced to 1860 by Precession only, according to different authorities, is,

		°	'	"
Bradley	1755	115	28	8.1
Piazzì.....	1800			3.8
Taylor	1835			6.4
Radc. Obs....	1855			7.0

These places do not indicate a P.M.

1374. The N.P.D. according to different authorities, reduced to 1860 by Precession only, is,

		°	'	"
Bradley	1757	101	23	(39.0)
Piazzì	1800			29.7
Argelander.....	1830			32.9
Taylor	1835			33.1
Greenwich	1837			35.0
.....	1845			35.2
.....	1852.4 ..			34.7
Rümker	1846			34.2
Radc. Obs.....	1855.2 ..			35.8

Omitting Bradley, who is inconsistent with the other authorities, the above places give P.M. = $+0^{\circ}108$; which being applied, the N.P.D. is,

		°	'	"
Bradley	101	23	(50.3)	
Piazzì			36.2	
Argelander.....			36.1	
Taylor			35.8	
Greenwich			37.5	
.....			36.8	
.....			35.5	
Rümker			35.7	
Radc. Obs.....			36.3	

1375. The N.P.D. reduced to 1860 by Precession only, is, by

		°	'	"
Bradley	1755	58	8	33.5
Piazzì	1800			32.6
Taylor	1835			34.4
Radc. Obs.....	1856.8 ..			32.8

These places show no appreciable P.M.

1376. The R.A. brought up to 1860 by Precession only, after increasing Piazzì and Groombridge, respectively, $0^{\circ}.28$ and $0^{\circ}.20$, is, by

			h.	m.	s.
Bradley	1755	22	23	42.26	
Piazzì	1800			42.27	
Groombridge...	1807.2 ..			42.02	
Taylor	1835			42.25	
Radc. Obs.....	1844.5 ..			42.05	
.....	1855.5 ..			42.06	

These places give P.M. = $-0^{\circ}.0017$; which being applied the R.A. becomes,

	h. m. s.		
Bradley	22	23	42.08
Piazzi.....			42.17
Groombridge...			41.93
Taylor			42.21
Radc. Obs.....			42.02
.....			42.05

1384. Rejecting P.M. the N.P.D. is, by

	° ' "		
Piazzi	1800	.....	90 7 18.3
Taylor	1835	.....	23.4
Radc. Obs.	1856.8	...	23.5

Whence P.M. = $+0^{\circ}.096$; which being applied, the N.P.D. 1860, by

	° ' "		
Piazzi	90	7	24.1
Taylor			25.8
Radc. Obs.			23.8

I think it very doubtful whether there is any P.M. in this case.

1386. Rejecting P.M. the N.P.D. 1860 is as follows:

	° ' "		
Groombridge	1813.5	... 21 48	43.6
Pond	1830	.....	39.4
Radc. Obs.	1844.5	...	40.1
Jacob	1849.9	...	37.6
Radc. Obs.	1856.7	...	40.1

Whence P.M. = $-0^{\circ}.091$; which being applied, N.P.D. 1860 is, by

	° ' "		
Groombridge	21	48	39.4
Pond			36.7
Radc. Obs.			38.7
Jacob			36.7
Radc. Obs.			39.8

This is another case in which I think it very doubtful whether there is any P.M.

1389. Rejecting P.M. the place of this Star for 1860 (Piazzi's R.A. being increased $0^s.26$) is,

R.A.				N.P.D.			
h. m. s.				° ' "			
Bradley	1755	.....	22 29 37.92	1755	.....	51 5	...
Piazzi	1800	.....	38.02	1800	.....	34.8	
Taylor.....	1835	.....	38.48	1835	.....	44.6	
Radc. Obs. ...	1853.4	...	38.74	1847.5	...	43.7	
.....	1856.8	...	38.53	1856.8	...	43.2	

Whence P.M. in R.A. = $+ 0^s.0083$.

in N.P.D. = $+ 0''161$.

Which being applied, we have the place for 1860 as follows :

R.A.				N.P.D.			
h. m. s.				° ' "			
Bradley	22	29	38.79	51	5	...	
Piazzi			38.52			44.5	
Taylor.....			38.68			48.6	
Radc. Obs. ...			38.79			44.7	
.....			38.56			43.7	

The P.M. in N.P.D. is very doubtful.

1391. Rejecting P.M. the R.A. 1860 (after increasing Groombridge $+ 0^s.47$, according to Mædler and Fedorenko) is, by

h. m. s.			
Groombridge...	1813.8	...	22 28 48.49
Pond	1830	.....	48.46
Radc. Obs.....	1846.3	...	48.07
.....	1856.8	...	48.29

Whence P.M. = $- 0^s.0081$; which being applied, the R.A. 1860 is, by

h. m. s.			
Groombridge...	22	28	48.12
Pond			48.22
Radc. Obs.....			47.96
.....			48.26

1394. The large P.M. in N.P.D. given in the text from B.A.C. seems to have been derived from comparison of Taylor with Lacaille and Brisbane. Taylor's N.P.D. differs from ours $- 0''7$.

1400. Rejecting P.M. the N.P.D. for 1860 of this Star is, by

			°	'	"
Bradley	1755	.....	78	31	47.9
Piazzi	1800	.....		32	4.8
Pond	1830	.....			23.6
Argelander. 1830	.....				23.0
Taylor	1835	.....			24.2
Radc. Obs..	1855	.....			36.2

Whence P.M. = $+ 0^{\circ}487$; which being applied, the N.P.D. 1860 is, by

			°	'	"
Bradley	78	32			38.9
Piazzi					34.0
Pond					38.2
Argelander .					37.6
Taylor					36.4
Radc. Obs. .					38.6

The P.M. in N.P.D. in the text is from B.A.C.; Argelander's is $+ 0^{\circ}472$; Mædler's $+ 0^{\circ}491$.

1402. Rejecting P.M. the N.P.D. for 1860 is as follows:

			°	'	"
Piazzi	1800	.....	44	31	11.5
Groombridge	1810	.....			12.6
Taylor	1835	.....			13.0
Radc. Obs.	1846.8	...			12.6
.....	1856.8	...			11.8

From which there appears to be no P.M.

1414. Rejecting P.M. Piazzi's R.A. differs $- 0^{\circ}.15$; Taylor's $+ 0^{\circ}.39$.

1415. Rejecting P.M. the place for 1860 is as follows:

			R.A.			N.P.D.		
			h.	m.	s.	°	'	"
Piazzi	1800	.....	22	52	12.98	103	49	10.4
Taylor	1835	.....			13.63			11.9
Radc. Obs..	1856.8	...			13.38			13.8

The differences in R.A. are, evidently, owing to errors of observation.

The N.P.D.'s show P.M. = $+ 0^{\circ}058$; which being applied, the N.P.D. 1860 is, by

			°	'	"
Piazzi	103	49			13.9
Taylor					13.4
Radc. Obs....					14.0

1416. Rejecting P.M. the N.P.D. for 1860 is, by

Bradley	1755	89° 46'	53.0"
Piazzi	1830		55.8
Taylor	1835		58.7
Rümker	1840		61.6
Radc. Obs. .	1856.8 ...		61.6

Whence P.M. = $+0^{\circ}089$; which being applied, the N.P.D. 1860 is, by

Bradley	89° 47'	2.3"
Piazzi		1.1
Taylor		0.9
Rümker		3.4
Radc. Obs. .		1.9

1421. Rejecting P.M. the R.A. for 1860 is, (after increasing Piazzi and Groombridge, respectively, $0^{\circ}.20$ and $0^{\circ}.23$, according to Mædler and Fedorenko,) by

		h. m. s.
Bradley	1755	22 57 52.68
Piazzi.....	1800	53.01
Groombridge ...	1810	53.77
Taylor	1835	53.92
Rümker	1841	53.98
Radc. Obs.....	1847	54.04
.....	1854.8 ...	54.16

Whence P.M. = $+0^{\circ}.0155$; which being applied, the R.A. 1860 is, by

	h. m. s.
Bradley	22 57 54.31
Piazzi.....	53.94
Groombridge ...	54.55
Taylor	54.31
Rümker	54.27
Radc. Obs.....	54.24
.....	54.24

1422. The place of this Star for 1860 (rejecting P.M. and adding $0^{\circ}.10$ to Piazzi's R.A.) is,

	R.A.	N.P.D.
	h. m. s.	
Bradley	1755	22 59 54.66
Piazzi	1800	54.68
Taylor	1835	55.23
Radc. Obs. ...	1856.8 ...	54.83
		54.1

It is doubtful whether there is any P.M. The Declination in Taylor's General Catalogue is *one minute* too great.

1426. The B.A.C. place is derived from comparison of Taylor with Lacaille and Brisbane. Probably the P.M. is erroneous. Taylor's R.A. differs $+ 0^{\circ}.42$ from ours.

1429. This is No. 540 Argelander, by whom its large P.M. in R.A. was discovered. Its place, reduced by Precession only, to 1860 is,

		R.A.		N.P.D.	
		h. m. s.		° ' "	
Bradley	—	23 6 —	1755	33 36 43.1	
Bessel	1817	22.69	1817	28.2	
Argelander	1830	25.70	1830	23.1	
.....	1835	27.09	—	—	
Rümker	1843	28.84	1843	20.3	
Rade. Obs.	1848.8 ...	30.44	1849.2 ...	17.8	
.....	1856.9 ...	32.71	1856.4 ...	15.0	

Whence P.M. in R.A. = $+ 0^{\circ}.2505$.

in N.P.D. = $- 0^{\circ}.273$.

Which being applied, the place in 1860 is, by

		R.A.		N.P.D.	
		h. m. s.		° ' "	
Bradley	23 6 —		33 36 14.5		
Bessel	33.44		16.5		
Argelander ...	33.20		14.2		
.....	33.34		—		
Rümker	33.29		15.7		
Rade. Obs. ...	33.24		14.8		
.....	33.49		14.0		

The P.M. in the text is from B.A.C.; according to

		P.M. in R.A.	in N.P.D.
		s.	"
Argelander	$+ 0.232$		$- 0.273$
Rümker .....	.247		.27
Mädler .....	.2487		.299

1432. The N.P.D. for 1860 (rejecting P.M.) is, by

		° ' "	
Bradley	1755	87 28 54.7	
Piazzi	1800	54.2	
Argelander	1830	54.6	
Taylor	1835	54.8	
Greenwich	1839	56.8	
.....	1844	55.7	
.....	1852.6 ...	55.7	
Rade. Obs.	1854.8 ...	57.0	

Whence P.M. = $+0^{\circ}019$; which being applied, the N.P.D. is, by

Bradley	$87^{\circ} 28' 56.7''$
Piazzi	55.3
Argelander	55.2
Taylor	55.2
Greenwich	57.2
.....	56.0
.....	55.8
Radc. Obs.	57.1

1433. The R.A. for 1860 (rejecting P.M. and adding $0^{\circ}.27$ to Groombridge)

is, by

	h. m. s.
Groombridge.... 1811.8	$23^{\circ} 10' 19.53''$
Argelander 1830	19.61
Radc. Obs. 1846.4	19.92
Jacob 1849.9	19.52
Radc. Obs. 1856.8	20.09

Whence P.M. = $+0^{\circ}.0091$; which being applied, the R.A. 1860 is, by

	h. m. s.
Groombridge... $23^{\circ} 10'$	19.97
Argelander	19.88
Radc. Obs.	20.04
Jacob	19.61
Radc. Obs.	20.12

Our R.A. in 1856.8 depends on *one* observation only; but another observation in 1857 gives a result almost identical. In N.P.D. we confirm the P.M. in the text, which is nearly the same as Argelander's and Mædler's.

1443. The R.A. reduced to 1860 (without P.M.) is, by

	h. m. s.
Bradley 1755	$23^{\circ} 17' 59.94''$
Piazzi..... 1800	59.56
Taylor 1835	60.59
Radc. Obs.... 1856.8 ...	60.03

These results, it will be perceived, are too uncertain to determine P.M.

1449. The place 1860 (rejecting P.M.) is, by

	R.A.	N.P.D.
	h. m. s.	$^{\circ} ' ''$
Piazzi 1800	$23^{\circ} 24' 16.83''$	1800 $94^{\circ} 50' 53.5''$
Taylor..... 1835	17.22	1835 62.9
Radc. Obs., 1856.8 ...	17.55	1854.8 ... 67.8

Whence P.M. in R.A. = $+0^s.0126$.

in N.P.D. = $+0''261$.

Which being applied, we have

	R.A.			N.P.D.		
	h.	m.	s.	'	"	
Piazzi	23	24	17.59	94	51	9.2
Taylor			17.53			9.4
Radc. Obs. .			17.59			9.2

1459. The N.P.D. for 1860 (rejecting P.M.) is, by

			°	'	"
Bradley	1755	.....	88	59	7.0
Piazzi	1800	.....			14.8
Taylor	1835	.....			19.1
Greenwich	1840	.....			21.5
.....	1845	.....			22.8
Rümker	1846	.....			21.8
Greenwich	1850	.....			22.7
Radc. Obs.	1855.3	...			25.3

Whence P.M. = $+0''170$; which being applied, the N.P.D. 1860 is, by

			°	'	"
Bradley	88	59	24.8		
Piazzi			25.0		
Taylor			23.4		
Greenwich			24.9		
.....			25.2		
Rümker			24.2		
Greenwich			24.4		
Radc. Obs.			26.1		

The adopted P.M. in the text (from Mr. Main) is identical with the above. B.A.C. adopts $+0''13$.

1460. The determinations of N.P.D. are very discordant. Reduced (without P.M.) to 1860, they are as follows:

			°	'	"
Bradley	1755	.....	105	18	61.4
Piazzi.....	1800	.....			60.7
Argelander...	1830	.....			59.3
Taylor	1835	.....			65.4
Radc. Obs....	1856.9	...			68.7

Whence P.M. = $+0''058$; which being applied to the above places, we have N.P.D. 1860, by

	°	'	"
Bradley	105	19	7.5
Piazzi			4.2
Argelander...			1.0
Taylor			6.8
Radc. Obs....			8.9

Our own result depends upon *two* observations in 1856, differing only $2''2$ from each other.

1465. The N.P.D. for 1860 (without P.M.) is, by

	°	'	"
Piazzi..... 1830	105	10	38.6
Taylor..... 1835			42.6
Radc. Obs. 1855.8 ...			44.7

Whence P.M. = $+0''109$; which being applied, N.P.D. 1860 is, by

	°	'	"
Piazzi..... 105 10	45.1		
Taylor	45.3		
Radc. Obs....	45.2		

1467. The place of this Star, reduced to 1860, (without P.M.) is, by

R.A.				N.P.D.			
h. m. s.				° ' "			
Bradley	—	23	45	—	1755	13	10 20.7
Lalande	1790		12.10	1790			23.6
Greenwich ...	1840		15.44	1840			30.2
Radc. Obs. ...	1849.8		16.13	1849.3			32.6
.....	1856.8		16.79	1856.7			33.7

Whence P.M. in R.A. = $0^{\circ}0679$.

in N.P.D. = $0''129$.

Which being applied, we have the places in 1860 by

	h.	m.	s.	°	'	"
Bradley 23 45	—			13	10	34.2
Lalande....			16.85			32.6
Greenwich.			16.80			32.8
Radc. Obs..			16.82			33.9
.....			17.01			34.1

Lalande's place is that given by Fedorenko, (Nos. 4579—80 of his Catalogue.)

1468. The R.A. for 1860 (without P.M.) is,

		h.	m.	s.
Lalande	1790	23	48	3.79
Groombridge...	1809.5 ...			3.66
Pond	1830			4.22
Rade. Obs.....	1845.6 ...			3.58
.....	1855.7 ...			3.84

There is therefore no evidence of P.M. This Star is Fedorenko 4592—93. Groombridge's R.A. has been increased $+ 0^{\circ}.45$, a mean of Mædler's and Fedorenko's corrections. Possibly there may be a slight error in Pond's place, through reduction, for a wrong Precession is given in his Catalogue. It should be $+ 2^{\circ}.808$, instead of $+ 1^{\circ}.640$, as there stated.

1472. Rejecting P.M. the N.P.D. for 1860, according to different authorities, is as follows :

		°	'	"
Bradley	1755	83	54	30.1
Piazzi	1800			34.7
Argelander....	1830			38.5
Taylor	1835			38.3
Greenwich	1840			40.9
.....	1845			40.6
Rümker	1846			40.9
Greenwich ...	1850			41.3
Rade. Obs. ...	1856.9 ...			44.9

Whence P.M. = $+ 0^{\circ}.130$; which being applied, the N.P.D. 1860 is,

		°	'	"
Bradley	83	54	43.7	
Piazzi			42.5	
Argelander			42.4	
Taylor.....			41.6	
Greenwich			43.5	
.....			42.6	
Rümker			42.7	
Greenwich			42.6	
Rade. Obs.			45.3	

The above P.M. is identical with that in the text (from Mr. Main); B.A.C. has adopted $+ 0^{\circ}.08$, and Mædler $+ 0^{\circ}.099$.

TABLE SHOWING THE LIMITS OF VARIATIONS, EPOCHS, AND PERIODS, OF THE VARIABLE STARS IN THE CATALOGUE, BY MR. POGSON.

Name.	Discoverer of Variability.	Observed Variation of Magnitude.		Elements.		
		Max.	Min.	Epoch.	Period.	Authority.
α Cassiopeie...	Birt	2.0	2.5	Uncertain	79.1 days	Argelander
\circ Ceti	Holwarda ..	2.0	Under 12	1861, June 16.45	331.3363 days	Argelander
β Persci	Montanari ..	2.3	4.0	† 1854, Oct. 8.22355	2.86727 days	Argelander
λ Tauri	Baxendell ..	4.0	4.5	† 1858, June 2.633	3.953 days	Baxendell
R Tauri	Hind	8.0	Under 13.5	1856, Feb. 2	330 days	Winnecke
ϵ Aurigæ	Heis	3.5	4.5	Uncertain	Unknown	.....
R Leporis	Schmidt	7	...	Uncertain	Unknown	.....
α Orionis	Herschel ...	1	1.5	1852, Nov. 26	196 days	.....
ζ Geminorum ..	Schmidt ...	3.8	4.5	† 1857, Feb. 7.3000	10.15833 days	Argelander
R Geminorum ..	Hind	7	11	1848, Nov. 14.5	369.73 days	Pogson
S Can. Min.	Hind	8.5	...	1856, Dec. 10	335 days	Schönfeld
S Geminorum ..	Hind	9	Under 13.5	1848, Feb. 20.1	294.07 days	Pogson
T Geminorum ..	Hind	9	Under 13.5	1848, Feb. 22.8	288.62 days	Pogson
R Canceri	Schwerd ...	6	Under 10	1857, Feb. 23	380 days	Argelander
S Canceri	Hind	8	10.5	† 1854, June 22.4714	9.48397 days	Argelander
S Hydræ	Hind	8.5	13.5	1857, Feb. 20	256 days	Schönfeld
T Canceri	Hind	9.5	12	Uncertain	Unknown	.....
R Leonis	Kock	5	10	1854, Nov. 27	312.57 days	Pogson
R Urs. Maj.	Pogson	7	13	1853, March 24.1	301.90 days	Pogson
R Virginis	Harding	6.5	Under 11	1856, Jan. 13.79	145.724 days	Argelander
S Urs. Maj.	Pogson	7	12	1853, Aug. 23.3	222.65 days	Pogson
S Virginis	Hind	5.5	11	1854, Feb. 7.5	380.11 days	Pogson
S Serpentis	Harding	8	Under 10	1857, April 5	367 days	Argelander
R Cor. Bor.	Pigott	6	...	1854, June 15	323 days	Argelander
α Herculis	W. Herschel	3	3.5	1856, May 18	66.33 days	Argelander
R Scuti	Pigott	5	9	1857, Nov. 23	71.75 days	Argelander
β Lyre	Goodricke ..	3.4	4.3	† 1857, Feb. 6.0792	12.90639 days	Argelander
R Aquilæ	Argelander ..	6.5	...	1857, July 20	351.5 days	Argelander
R Cygni	Pogson	7.5	Under 14	1852 Aug. 7.5	416.72 days	Pogson
η Aquilæ	Pigott	3.6	4.4	† 1857, Feb. 6.6056	7.17631	Argelander
γ Cygni	Lauson	3	Under 6	Uncertain	18 years	Pigott
γ Cephei (Hev.)	Pogson	5	11	1807	73 years?	Pogson
S Capricorni ...	Hind	9	11	Uncertain	Unknown	.....
T Capricorni ...	Hind	9	Under 14	1855, Oct. 25	274 days	Schönfeld
μ Cephei	W. Herschel	3	6	1857, April or May	Unpublished	Argelander
δ Cephei	Goodricke ..	3.7	4.8	† 1857, Feb. 6.0516	5.366436	Argelander
β Pegasi	Schmidt	2	2.5	Uncertain	41 days	Schmidt
R Cassiopeie ...	Pogson	6.0	Under 14	1853, April 28.9	434.81 days	Pogson

The epochs marked thus † are epochs of minimum.



INTRODUCTION

TO THE

METEOROLOGICAL OBSERVATIONS.

THE Observations in the following pages have been derived principally from the Photographic Instruments, which were fully described in our 15th and 16th volumes.

The arrangement of the Register is the same as in our last volume. It gives the measured ordinates, from our Photographic pictures, at the even hours of the day, beginning at Midnight, in terms of a scale, of which the unit is $\frac{1}{4}$ th of an English inch.

The field of the lenses, with which the several Instruments are provided, does not take in quite the whole range of their variations. In the Barograph, the apex of the mercurial column is sometimes above the field of the lens, but never below it. In the Thermograph and Hygograph, it is sometimes above, and sometimes below. The omissions, caused by this circumstance, have in some cases been substituted by Observations made with the ordinary Instruments; and in others, the recorded quantities are mere interpolations introduced, when there is reason to presume that the changes have not been irregular. All substitutions and interpolations have been noted either in the foot-notes, or by some distinctive mark, as follows:

- 1°. When the apex of the mercurial column was *below* the field of the lens, the circumstance is mentioned in the foot-notes.
- 2°. When *above* the field, the letter "n" is affixed to the registered value; and it is to be remembered, that for the purpose of deducing mean values, or for finding their equivalents, on the ordinary scales, from the table we shall give, these numbers are to be considered *negative*.
- 3°. All arbitrary interpolations are distinguished by an asterisk.

Descriptions of the Instruments, and of the general method of treatment, have for the most part been given in former volumes. Any

changes or additions, which have been made during the year now under consideration, will be mentioned in the course of this Introduction.

The Photographic processes have been conducted by Mr. George Green, the journeyman of the Establishment, by whom also all the Meteorological Observations were made.

Barograph.

No change has been made in this Instrument, and it continues to act admirably. The expression used for finding the equivalents to our numbers in the ordinary Barometric scale, is the same as that given in our last volume; *viz.*

$$\text{Equivalent} = 30.409 - 0.1406n + .0126 (\beta - 29.73)$$

where n denotes recorded readings of our scale; β , the approximate reading of the Barometer at the time. A table of these equivalents will be given in the sequel.

The Standard Barometer is read every morning at 10^h; and the following table exhibits a comparison of its mean monthly indications with those of the Barograph at the same hour.

Month.	Barometer at 10 ^h .	Barograph at 10 ^h .	Excess of Barograph.
January	29.415	29.416	+ .001
February .....	.852	.856	+ .004
March .....	.988	.987	- .001
April .....	.567	.570	+ .003
May .....	.612	.622	+ .010
June .....	.841	.838	- .003
July .....	.788	.793	+ .005
August .....	.702	.703	+ .001
September...	.612	.611	- 0.01
October .....	.948	.944	- 0.04
November ...	.885	.885	.000
December ...	.608	.608	.000
	29.735	29.736	+ .001

The hourly means at the foot of each column of the Register, furnish the following values of a , a' , a'' , &c. in the formula

$$B_x = a + a' \sin (x + A) + a'' \sin (2x + B) + a''' \sin (3x + C)$$

where B_x is the required height of the Barometer at any hour; and x , the hour angle reckoned from midnight.

Month.	a	a'	a''	a'''	A	B	C
	in.				° ' "	° ' "	° ' "
January	29.404	.0074	.0088	.0056	189 0	165 42	356 38
February	29.840	.0064	.0123	.0029	20 42	145 1	324 47
March	29.972	.0127	.0090	.0030	14 24	133 48	356 49
April	29.554	.0088	.0152	.0032	15 21	135 27	93 0
May	29.621	.0078	.0081	.0002	80 8	158 12	171 15
June	29.831	.0053	.0092	.0038	10 57	148 19	177 30
July	29.784	.0070	.0102	.0021	11 2	146 19	108 25
August	29.691	.0128	.0094	.0022	7 30	129 55	57 32
September ...	29.600	.0071	.0110	.0010	9 30	144 50	288 25
October	29.936	.0063	.0132	.0020	163 0	169 57	243 33
November ...	29.876	.0065	.0081	.0051	79 34	139 9	7 21
December ...	29.584	.0060	.0095	.0052	318 28	152 6	341 34

From these values we find the hourly excesses over the mean of the day as follows.

Hr.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Hr.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
0	.000	+.007	+.009	+.016	+.011	+.006	+.009	+.011	+.007	+.003	+.012	-.001	0
1	-.003	+.005	+.010	+.010	+.007	+.001	+.004	+.010	+.003	-.006	+.010	.000	1
2	-.005	+.002	+.010	+.002	+.002	-.005	-.001	+.007	.000	-.014	+.008	-.001	2
3	-.010	-.001	+.008	-.005	-.001	-.006	-.003	+.004	-.002	-.016	+.003	-.004	3
4	-.015	-.004	+.004	-.009	-.003	-.004	-.006	+.001	-.004	-.015	-.004	-.006	4
5	-.017	-.005	+.002	-.007	-.003	.000	-.003	+.001	-.003	-.012	-.010	-.008	5
6	-.015	-.003	+.003	-.002	-.002	+.004	+.002	+.003	+.001	-.007	-.009	-.005	6
7	-.007	+.002	+.007	+.006	.000	+.006	+.009	+.008	+.005	-.003	-.004	+.002	7
8	.000	+.007	+.011	+.013	+.002	+.008	+.012	+.014	+.009	+.002	+.001	+.010	8
9	+.006	+.012	+.014	+.017	+.003	+.008	+.014	+.017	+.013	+.006	+.006	+.016	9
10	+.011	+.016	+.015	+.017	+.002	+.007	+.013	+.015	+.014	+.007	+.008	+.020	10
11	+.009	+.013	+.012	+.012	-.001	+.006	+.008	+.010	+.011	+.006	+.004	+.016	11
12	+.004	+.006	+.004	+.005	-.005	+.004	+.003	+.004	+.006	+.002	-.002	+.009	12
13	-.002	-.004	-.005	-.003	-.008	+.001	-.003	-.003	-.001	-.002	-.008	+.001	13
14	-.007	-.013	-.015	-.010	-.012	-.003	-.009	-.010	-.009	-.007	-.014	-.008	14
15	-.006	-.019	-.020	-.016	-.014	-.008	-.013	-.016	-.016	-.010	-.015	-.013	15
16	-.002	-.020	-.021	-.020	-.013	-.014	-.017	-.019	-.019	-.010	-.011	-.013	16
17	+.004	-.017	-.019	-.021	-.009	-.016	-.015	-.020	-.017	-.005	-.006	-.009	17
18	+.011	-.012	-.016	-.019	-.004	-.014	-.013	-.019	-.013	+.002	-.001	-.004	18
19	+.013	-.004	-.011	-.013	+.002	-.008	-.007	-.015	-.007	+.010	+.002	-.001	19
20	+.012	+.003	-.007	-.005	+.008	.000	.000	-.010	.000	+.018	+.004	+.001	20
21	+.009	+.006	-.002	+.004	+.012	+.006	+.005	-.005	+.005	+.021	+.006	.000	21
22	+.006	+.009	+.002	+.013	+.014	+.011	+.009	+.003	+.008	+.017	+.008	-.001	22
23	+.002	+.009	+.006	+.017	+.014	+.010	+.011	+.008	+.009	+.009	+.010	-.002	23

Combining the above with the corresponding values in 1855 (*R. O. Vol. xv. p. [xiv]*), we have the mean of two years as follows.

HORARY VARIATIONS OF THE BAROMETER FROM THE MEAN OF THE DAY,
FROM TWO YEARS' OBSERVATIONS.

Hour.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Hour.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
0	+.005	+.003	+.010	+.012	+.015	+.004	+.010	+.007	+.012	+.006	+.007	+.005	0
1	+.003	.000	+.007	+.008	+.012	-.002	+.006	+.005	+.010	.000	+.003	+.005	1
2	+.002	-.003	+.003	+.003	+.008	-.008	+.002	+.001	+.007	-.006	.000	-.004	2
3	-.004	-.004	.000	-.002	+.005	-.010	-.001	-.001	+.004	-.008	-.005	-.001	3
4	-.010	-.007	-.005	-.005	+.002	-.012	-.005	-.003	.000	-.009	-.010	-.005	4
5	-.013	-.006	-.005	-.002	+.003	-.005	-.002	-.002	.000	-.008	-.012	-.007	5
6	-.013	-.005	-.003	+.002	+.005	+.002	+.002	.000	+.003	-.007	-.009	-.005	6
7	-.007	+.002	.000	+.009	+.007	+.005	+.007	+.004	+.007	-.004	-.002	+.002	7
8	+.001	+.007	+.005	+.015	+.008	+.009	+.009	+.008	+.013	+.001	+.005	+.010	8
9	+.008	+.012	+.009	+.017	+.007	+.009	+.010	+.010	+.015	+.005	+.009	+.016	9
10	+.010	+.017	+.012	+.018	+.005	+.008	+.007	+.010	+.016	+.007	+.012	+.020	10
11	+.009	+.013	+.009	+.012	.000	+.007	+.003	+.007	+.010	+.005	+.007	+.016	11
12	+.004	+.008	+.004	+.005	-.007	+.005	-.002	+.003	+.005	.000	+.001	+.009	12
13	-.002	-.001	-.005	-.003	-.010	+.002	-.007	-.003	-.004	-.005	-.006	.000	13
14	-.009	-.010	-.014	-.012	-.015	-.003	-.010	-.008	-.012	-.012	-.013	-.010	14
15	-.009	-.015	-.017	-.017	-.017	-.005	-.013	-.012	-.018	-.013	-.013	-.014	15
16	-.007	-.016	-.018	-.021	-.017	-.008	-.014	-.013	-.021	-.014	-.010	-.016	16
17	+.003	-.013	-.014	-.021	-.015	-.010	-.013	-.012	-.020	-.007	-.005	-.013	17
18	+.002	-.007	-.009	-.019	-.013	-.010	-.012	-.010	-.018	.000	+.001	-.009	18
19	+.005	-.002	-.002	-.013	-.007	-.005	-.008	-.005	-.014	+.006	+.005	-.006	19
20	+.006	+.005	+.005	-.006	-.002	+.002	-.003	-.001	-.008	+.016	+.008	-.004	20
21	+.006	+.006	+.008	+.002	+.005	+.008	+.003	+.002	-.002	+.018	+.009	-.002	21
22	+.006	+.007	+.011	+.009	+.010	+.013	+.009	+.007	+.004	+.016	+.010	.000	22
23	+.006	+.005	+.011	+.012	+.013	+.009	+.011	+.008	+.009	+.010	+.008	+.002	23

The hour of minimum and maximum may be found from the expression,

$$0 = a' \cos (x + A) + 2a'' \cos (2x + B) + 3a''' \cos (3x + C).$$

But we have adopted the process of graphic projection, which, by adopting a large scale, has been found sufficiently accurate for our purpose.

The several epochs in 1856 were as follows :

Month.	Forenoon.		Afternoon.	
	Min.	Max.	Min.	Max.
	h.	h.	h.	h.
January	5.0	10.1	14.4	19.2
February	4.8	10.0	15.6	22.5
March	5.3	10.0	16.0	1.4
April	4.1	9.4	16.8	23.0
May	4.5	9.0	15.2	22.4
June	2.8	9.0	17.0	22.4
July	4.0	9.3	16.0	23.0
August	4.4	9.1	17.0	0.2
September...	4.0	10.0	16.2	22.8
October	3.2	10.0	16.3	20.8
November ...	5.5	10.0	14.8	0.0
December ...	5.2	10.0	15.7	20.0
Year.....	4.40	9.66	15.92	22.48

Combining the above with the corresponding epochs in 1855 (*R. O.* Vol. xvi. p. [xv]), we have the mean of two years, as follows.

Month.	Forenoon.		Afternoon.	
	Min.	Max.	Min.	Max.
	h.	h.	h.	h.
January	5.4	10.0	15.2	21.8
February	4.5	10.0	15.6	21.3
March	4.7	10.2	15.7	23.3
April	4.1	9.3	16.6	23.3
May	4.4	8.4	16.1	23.4
June	3.4	9.1	17.5	22.2
July	4.1	8.8	16.9	23.4
August	4.0	9.5	16.3	23.1
September...	4.4	9.6	16.6	23.7
October	4.6	10.0	15.7	20.9
November ...	4.7	10.0	14.8	0.4
December ...	5.2	10.0	16.0	22.4
Year.....	4.46	9.59	16.08	22.77
Winter...	5.03	10.07	15.60	21.83
Spring ...	4.40	9.30	16.13	23.33
Summer .	3.83	9.13	16.90	22.90
Autumn .	4.57	9.87	15.70	23.00

In the quarterly results given above, we may observe the tendency, noticed by many writers, of the several epochs to approach nearer to mid-day in Winter, than in Summer. The only exception occurs in the afternoon maximum, which is the most variable epoch; for on comparing the results of the two years, it appears that their probable variations, severally, are,

				h.	m.
Forenoon ...	Minimum	Prob. Var. \pm	0.36	=	21.6
.....	Maximum ....	.....	0.17	=	10.2
Afternoon ..	Minimum ....	.....	0.39	=	23.4
.....	Maximum ...	.....	0.89	=	53.4

The extent of the oscillation, in 1856, is shown in the following table, where in the first part is given the range between consecutive maxima and minima, beginning with the maximum at or near 22^h (10 p.m.); in the second part, the mean of the oscillations between from 22^h—10^h, and from 10^h—22^h; lastly, the mean of all the oscillations in the day.

Month.	Oscillations between				Mean of the Oscillations between		Mean of all the Oscillations.
	22 ^h —4 ^h	4 ^h —10 ^h	10 ^h —16 ^h	16 ^h —22 ^h	22 ^h —10 ^h	10 ^h —22 ^h	
1856.	in.	in.	in.	in.	in.	in.	in.
January .....	.030	.028	.019	.021	.0290	.0200	.0245
February .....	.014	.021	.036	.029	.0175	.0325	.0250
March .....	.013	.013	.036	.032	.0130	.0340	.0235
April .....	.026	.027	.039	.038	.0265	.0385	.0325
May .....	.017	.006	.017	.028	.0115	.0225	.0270
June .....	.018	.014	.024	.028	.0160	.0260	.0210
July .....	.017	.020	.031	.028	.0185	.0295	.0240
August .....	.010	.012	.033	.031	.0110	.0320	.0215
September...	.013	.018	.033	.028	.0155	.0305	.0230
October .....	.037	.023	.017	.031	.0300	.0240	.0270
November ...	.022	.018	.023	.027	.0200	.0250	.0225
December ...	.008	.027	.034	.015	.0175	.0245	.0210
Year .....	.0188	.0190	.0285	.0280	.0189	.0283	.0244
Winter...	.0173	.0253	.0297	.0217	.0213	.0257	.0235
Spring ...	.0187	.0153	.0307	.0327	.0170	.0317	.0244
Summer .	.0150	.0153	.0293	.0290	.0152	.0292	.0222
Autumn .	.0240	.0197	.0243	.0287	.0219	.0265	.0242

From the quarterly results, at the foot of this table, it will be perceived, that the oscillations from 10^h—22^h are the greatest throughout the year.

The elasticity of vapour deduced from the 2d edition of Mr. Glaisher's *Hygrometrical Tables*, with the corresponding observations of the Thermograph and Hygrograph, are,

Month.	0	2	4	6	8	10	12	14	16	18	20	22
January	218	220	215	208	213	226	232	229	230	231	224	217
February	247	242	239	238	246	250	254	253	253	254	248	251
March	216	204	198	199	212	225	222	216	218	218	215	230
April	251	250	257	261	256	253	250	253	255	262	263	257
May	284	277	274	286	290	289	286	276	288	288	292	294
June	374	364	356	364	356	367	373	384	371	370	366	379
July	406	404	407	425	410	397	401	413	422	425	428	421
August	441	427	425	441	439	424	431	437	439	437	447	453
September	351	344	319	327	344	339	329	343	364	360	346	352
October	319	315	303	303	334	367	365	349	348	357	339	319
November	224	220	216	217	221	226	231	234	231	225	224	222
December	224	220	218	218	218	223	236	246	244	232	226	226
Mean	2963	2906	2856	2906	2949	2988	3008	3028	3052	3050	3015	3022

The mean values are very nearly represented by the expression,

$$V_x = 0.298 + .0080 \sin(x + 202^\circ 30') + .0007 \sin(2x + 255^\circ 58') + .0015 \sin(3x + 96^\circ 50')$$

Subtracting these quantities from the corresponding Atmospheric Pressures, we obtain the following table of the Pressure of Dry Air.

Month.	0	2	4	6	8	10	12	14	16	18	20	22	Mean.
January ...	29.185	.179	.174	.181	.191	.189	.176	.168	.172	.184	.192	.193	29.182
February ..	.600	.600	.597	.599	.601	.606	.592	.574	.567	.574	.595	.598	.592
March .....	.765	.778	.778	.776	.771	.762	.754	.742	.733	.738	.750	.744	.758
April .....	.319	.306	.288	.291	.311	.318	.309	.291	.279	.273	.286	.310	.298
May .....	.348	.346	.344	.333	.333	.334	.330	.333	.320	.329	.337	.341	.336
June .....	.463	.462	.471	.471	.483	.471	.462	.444	.446	.447	.465	.463	.462
July .....	.387	.379	.371	.361	.386	.400	.385	.362	.345	.346	.356	.372	.371
August ....	.260	.271	.267	.253	.265	.282	.264	.243	.233	.235	.234	.241	.254
September	.256	.256	.278	.273	.265	.275	.277	.248	.215	.227	.234	.256	.254
October ...	.620	.608	.618	.625	.604	.576	.573	.580	.578	.588	.615	.634	.602
November	.664	.664	.656	.650	.656	.658	.651	.629	.634	.649	.656	.662	.652
December	.359	.356	.360	.362	.375	.381	.358	.329	.327	.348	.360	.357	.356
Mean	29.435	.434	.433	.431	.437	.438	.427	.413	.404	.411	.425	.431	.4264

On inspecting this table, it will be seen, that Dove's hypothesis of the diurnal changes of the Barometer being due to the relative prevalence of vapour in the atmosphere, is not supported by the monthly results;—May being the only month in which the double oscillation is reduced to a single one. But taking the mean of all the bi-horary results during the year, we approach nearer to agreement with that hypothesis. This curve is nearly represented by the expression,

$$B_n = 29.4264 + 0.0132 \sin(x + 22.55) + 0.0076 \sin(2x + 145.15) \\ + 0.0016 \sin(3x + 304.40)$$

which is very nearly identical with the corresponding expression in 1855 (*R. O. Vol. xvi. p. [xvii]*). The bi-horary values resulting from it are,

	in.
0 =	29.4346
2 =	.4345
4 =	.4332
6 =	.4332
8 =	.4363
10 =	.4365
12 =	.4270
14 =	.4117
16 =	.4044
18 =	.4108
20 =	.4231
22 =	.4315

Here, though there is still the tendency to an increasing pressure between 4^h—10^h, the amount is much less than it was before the vapour was subtracted.

The cistern of the Barograph is about 210 feet above the sea-level; which gives the reduction of its indications to that plane = + 0.231 inch.

Thermograph.

The expression used for finding the equivalents to our scale in terms of Fahrenheit's scale is,

$$\text{Equivalent} = 78.4 - 4.058n,$$

where n is the scale reading.

In this expression the second term is the same as we used in 1855;—the first term is 1°.2 less.

Until the beginning of October a further correction is requisite, viz.

$$- 0.13 (t' - t)$$

t' , t being respectively the temperature of the room, and of the external air.

The values given in the last column of our Register, as the temperature of the room, are the means of the readings of a maximum and minimum Thermometer; consequently they are not strictly applicable to all hours of the day. The range of temperature however is very small, seldom exceeding 3° or 4°; therefore no material error will arise from this cause.

The necessity for this correction was occasioned, as stated in our last volume, by the Instrument being placed partly inside the room, and partly outside. In the beginning of October this defect was remedied, by removing to the outside all that part of the Instrument which carries the Thermometer, and from that time the correction is dispensed with.

The following table contains a comparison of the mean monthly readings of the Thermograph at 10^h, with those of our Standard Thermometer at the same time. The 4th column shows the excesses of the Thermograph, and the 5th the corrections which have been applied to its hourly and daily means.

Month.	Thermo- meter.	Thermo- graph.	Excess of Thermo- graph.	Adopted Correc- tion.
	°	°	°	°
January	40.0	39.0	- 1.0	+ 0.7
February.....	42.3	42.7	+ 0.4	- 0.4
March	39.8	39.1	- 0.7	+ 0.3
April	49.0	48.6	- 0.4	+ 0.6
May	51.1	50.8	- 0.3	+ 0.2
June	60.4	60.8	+ 0.4	- 0.4
July	62.9	62.8	- 0.1	- 0.1
August	64.8	64.4	- 0.4	+ 0.1
September ...	57.0	56.4	- 0.6	+ 0.5
October	52.0	52.3	+ 0.3	- 0.6
November ...	41.8	42.2	+ 0.4	- 0.3
December	39.9	40.9	+ 1.0	- 0.2

The two-hourly indications furnish the following values in the formula

$$T_x = a + a' \sin (x + A) + \&c.$$

Month.	a	a'	a''	a'''	A	B	C
	°	°	°	°	° /	° /	° /
January	39.7	1.98	1.12	0.33	230 17	27 4	194 44
February.....	41.8	2.81	0.96	0.13	221 52	44 52	229 48
March.....	38.9	5.01	1.01	0.15	217 27	35 35	173 40
April	46.8	6.19	1.05	0.31	229 52	56 52	3 5
May	48.9	6.10	0.33	0.19	230 39	102 26	10 18
June	57.6	7.85	0.15	0.58	227 54	160 58	46 10
July	60.9	7.69	0.20	0.64	226 45	32 15	31 13
August	62.4	7.21	0.95	0.62	224 55	49 23	26 34
September ...	54.4	5.96	1.60	0.59	228 47	58 28	308 9
October	50.3	3.62	1.37	0.25	229 53	26 19	168 41
November....	41.9	2.09	1.64	0.20	242 58	42 14	221 38
December	41.2	1.30	0.77	0.36	225 12	36 24	210 4

From these expressions we obtain the following horary excesses from the mean temperature of the day.

Hour.	Jan.	Feb.	Mch.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Hour.
0	- 1.1	- 1.3	- 2.4	- 3.8	- 4.4	- 5.4	- 5.2	- 4.1	- 3.6	- 2.1	- 0.9	- 0.6	0
1	1.1	1.6	3.1	4.2	5.2	6.4	6.0	5.0	3.9	2.2	0.8	0.7	1
2	1.1	1.8	3.8	4.9	5.8	7.4	6.7	5.5	4.1	2.4	0.6	0.8	2
3	1.2	2.1	4.3	5.4	6.2	8.0	7.2	6.1	4.9	2.5	0.9	0.8	3
4	1.2	2.4	4.6	5.8	6.0	7.9	7.6	6.9	5.2	2.7	1.1	0.8	4
5	1.3	2.5	4.6	6.0	5.4	7.2	7.2	7.0	5.4	2.7	1.3	0.9	5
6	1.5	2.7	4.4	5.2	4.4	5.6	5.9	6.4	5.7	2.7	1.9	1.1	6
7	1.6	2.4	3.8	3.6	3.0	3.4	3.8	4.4	5.0	2.6	2.0	1.2	7
8	1.5	1.9	2.9	- 2.0	- 1.1	- 1.1	- 1.6	- 2.5	3.1	2.0	1.6	1.3	8
9	0.9	1.0	- 1.1	+ 0.1	+ 0.8	+ 1.0	+ 0.6	0.0	- 0.3	- 0.9	- 0.4	1.0	9
10	- 0.2	+ 0.3	+ 0.1	2.4	2.5	3.0	2.7	+ 2.2	+ 2.2	+ 0.2	+ 0.5	- 0.3	10
11	+ 1.0	1.4	2.2	4.0	3.8	4.4	4.0	3.8	4.7	1.9	2.0	+ 0.8	11
12	2.1	2.7	3.6	5.6	5.0	5.5	5.4	5.5	6.3	3.3	3.1	1.6	12
13	3.1	3.5	4.7	6.4	5.4	6.5	6.4	6.3	7.0	4.7	4.0	2.0	13
14	3.4	3.7	5.8	6.7	5.9	7.2	7.1	7.3	6.9	5.2	3.8	2.4	14
15	3.2	3.5	6.0	6.6	5.9	7.6	7.6	7.6	6.3	5.3	3.0	1.6	15
16	2.4	2.9	5.4	5.9	5.5	7.7	7.8	7.4	5.3	4.2	2.1	1.4	16
17	1.3	2.1	4.4	4.6	4.8	7.2	7.0	6.4	4.3	3.0	+ 1.0	0.9	17
18	+ 0.5	1.3	3.3	3.4	3.7	5.6	5.7	4.9	3.0	1.5	- 0.3	+ 0.1	18
19	- 0.2	0.7	2.1	2.0	2.2	3.4	3.4	2.7	1.8	+ 0.4	1.4	0.0	19
20	0.7	+ 0.1	0.9	+ 0.1	+ 0.9	+ 1.3	+ 1.2	+ 0.7	+ 0.3	- 0.8	1.6	- 0.3	20
21	0.9	- 0.4	+ 0.1	- 0.6	- 0.6	- 0.6	- 0.8	- 1.0	- 1.0	1.4	1.5	0.3	21
22	1.0	0.8	- 0.8	2.5	2.1	2.7	2.9	2.6	2.3	1.7	1.5	0.3	22
23	- 1.0	- 1.0	- 1.6	- 3.3	- 3.2	- 4.0	- 4.2	- 3.3	- 3.0	- 2.0	- 1.0	- 0.5	23

Combining the above, with the corresponding values obtained in 1855, (*R. O. Vol. xvi. p. [xx].*) we have as the result of 2 years' observation,

HORARY VARIATIONS OF THE THERMOMETER FROM THE MEAN OF THE DAY,
FROM TWO YEARS' OBSERVATION.

Hour.	Jan.	Feb.	Mch.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Hour.
0	-0.9	-1.7	-2.7	-3.8	-4.5	-5.1	-4.8	-4.1	-3.6	-2.3	-1.3	-0.5	0
1	0.9	1.9	3.2	4.5	5.6	6.0	5.5	5.0	3.9	2.4	1.4	0.6	1
2	0.9	2.0	3.7	5.2	6.4	7.0	6.0	5.7	4.0	2.6	1.5	0.7	2
3	1.0	2.1	4.2	5.7	6.7	7.4	6.5	6.4	4.6	2.8	1.6	0.7	3
4	1.1	2.3	4.8	6.3	6.8	7.5	6.6	7.2	4.9	3.0	1.8	0.7	4
5	1.2	2.4	4.9	6.2	6.1	6.7	5.9	7.0	4.8	3.0	1.9	0.8	5
6	1.5	2.5	4.7	5.5	4.9	5.1	4.9	6.3	4.8	2.9	2.0	1.1	6
7	1.6	2.3	3.9	3.6	3.0	3.0	3.0	4.2	3.8	2.5	2.0	1.2	7
8	1.6	1.8	2.7	-1.8	-0.9	-0.7	-1.1	-2.2	-2.2	1.7	1.7	1.4	8
9	0.9	-0.7	-0.8	+0.6	+1.1	+1.3	+0.8	+0.3	+0.3	-0.4	-0.7	0.9	9
10	-0.2	+0.5	+0.8	2.9	2.9	3.2	2.7	2.5	2.4	+1.0	+0.5	-0.2	10
11	+1.0	1.7	2.7	4.5	4.4	4.5	3.9	4.0	4.5	2.5	1.8	+0.9	11
12	2.0	3.0	3.8	6.1	5.3	5.5	5.2	5.5	6.3	3.9	3.0	1.8	12
13	3.0	3.7	5.5	6.8	5.9	6.3	6.2	6.3	7.0	4.7	3.7	2.1	13
14	3.2	3.9	6.2	7.2	6.4	6.9	6.8	7.2	7.1	5.1	3.8	2.4	14
15	2.7	3.7	6.1	6.9	6.5	7.2	7.1	7.3	6.6	4.7	3.0	1.8	15
16	2.2	3.1	5.5	6.3	6.3	7.3	6.9	7.2	5.8	3.8	2.2	1.4	16
17	1.2	2.4	4.2	5.0	5.5	6.5	6.0	6.2	4.6	2.5	+1.2	0.9	17
18	+0.5	1.5	3.0	3.7	4.2	5.0	4.9	4.9	3.1	1.1	0.0	0.3	18
19	-0.1	+0.7	1.6	2.2	2.4	2.9	2.7	2.7	+1.5	+0.6	-0.8	+0.1	19
20	0.4	0.0	+0.2	+0.1	+0.9	+0.9	+0.6	+0.8	-0.2	-1.0	1.3	-0.1	20
21	0.7	-0.7	-0.7	-1.0	-0.8	-0.9	-1.2	-1.0	1.5	1.6	1.4	0.2	21
22	0.8	1.3	1.5	2.5	2.2	2.7	3.0	2.5	2.8	2.0	1.5	0.3	22
23	-0.8	-1.5	-2.2	-3.3	-3.4	-4.0	-4.0	-3.3	-3.2	-2.2	-1.3	-0.4	23

The hours of minimum, maximum, and mean temperature in each month, are as follows.

	Hours of		Interval	Hours of		Interval.
	Min.	Max.		Mean Tem- perature.		
	h.	h.	h.	h.	h.	h.
January	6.8	14.0	7.2	10.3	18.6	8.3
February.....	6.0	14.0	8.0	9.7	20.0	10.3
March.....	5.0	14.8	9.8	8.8	21.0	12.2
April	4.5	14.0	9.5	8.8	20.0	11.2
May	3.2	14.5	11.3	8.5	20.5	12.0
June	2.5	15.5	13.0	8.4	20.5	12.1
July	4.2	16.0	11.8	8.8	20.7	11.9
August	4.4	15.5	11.1	9.0	20.4	11.4
September ...	6.0	13.2	7.2	9.2	20.4	11.2
October	6.0	14.5	8.5	9.6	19.3	9.7
November ...	6.8	13.2	6.4	9.4	17.7	8.3
December	8.0	14.0	6.0	10.2	19.0	8.8
Year.....	5.3	14.4	9.1	9.2	19.8	10.6
Winter...	6.9	14.0	7.1	10.1	19.2	9.1
Spring ...	4.3	14.4	10.1	8.7	20.5	11.8
Summer .	3.7	15.7	12.0	8.7	20.5	11.8
Autumn .	6.3	13.6	7.3	9.4	19.1	9.7

Combining the above with the corresponding values in 1855 (*R. O.* Vol. xvi. p. [xxi]), the result of 2 years' observation is as follows.

	Hours of		Interval.	Hours of		Interval.
	Min.	Max.		Mean Tem- perature.		
	h.	h.	h.	h.	h.	h.
January	7.4	13.7	6.3	10.1	18.8	8.7
February.....	6.0	14.0	8.0	9.5	19.8	10.3
March.....	5.0	14.4	9.4	9.0	20.3	11.3
April	4.3	14.0	9.7	9.2	20.2	10.0
May	3.6	14.7	11.1	8.5	20.5	12.0
June	3.3	15.7	12.4	8.3	20.4	12.1
July	3.6	15.3	11.7	8.6	20.3	11.7
August	4.2	15.3	11.1	8.7	20.4	11.7
September ...	5.0	13.6	8.6	8.9	20.0	11.1
October	5.0	14.3	9.3	9.3	18.9	9.6
November....	5.4	13.6	8.2	9.6	18.1	8.5
December	8.0	14.0	6.0	10.1	20.0	9.9
Year.....	5.1	14.4	9.3	9.1	19.8	10.7
Winter...	7.1	13.9	6.8	9.9	19.5	9.6
Spring ...	4.3	14.4	10.1	8.9	20.3	11.4
Summer .	3.7	15.4	11.7	8.5	20.4	11.9
Autumn..	5.1	13.8	8.7	9.3	19.0	9.7

Hydrograph.

The values of a , a' , a'' , &c. in the expression, $H_x = a + a' \sin(x + A)$ &c. are as follows.

Month.	a	a'	a''	a'''	A	B	C
	°	°	°	°	°	°	°
January	38.6	1.51	0.77	0.15	225 55	32 40	276 20
February.....	41.0	1.79	0.53	0.06	218 30	59 11	236 19
March.....	37.9	2.78	0.67	0.18	217 42	57 5	21 48
April	43.9	3.10	0.20	0.17	228 9	59 51	354 17
May	46.3	3.23	0.38	0.10	228 30	163 20	80 32
June	53.9	3.69	0.41	0.18	225 26	158 17	56 18
July	57.0	3.42	0.34	0.12	222 33	272 31	56 19
August	58.5	3.21	0.24	0.21	221 29	86 27	71 34
September ...	51.4	3.03	0.74	0.44	218 5	67 7	40 22
October	49.1	2.85	0.69	0.30	233 0	60 6	353 40
November ...	39.9	1.44	1.05	0.07	240 38	46 44	153 27
December	39.7	1.29	0.71	0.31	219 49	32 17	188 58

From these expressions are deduced the following hourly deviations from the mean of the day.

Hr.	Jan.	Feb.	Mch.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Hr.
0	-0.8	-0.7	-1.1	-2.2	-2.2	-2.3	-2.6	-1.7	-0.9	-1.6	-0.5	-0.5	0
1	0.8	1.0	1.6	2.3	2.8	2.8	3.0	2.1	1.3	1.7	0.5	0.7	1
2	0.8	1.2	2.0	2.7	3.4	3.2	3.4	2.8	1.9	1.9	0.5	0.8	2
3	0.9	1.4	2.3	2.8	3.6	3.7	3.4	3.1	2.7	2.2	0.8	0.9	3
4	1.0	1.7	2.8	2.9	3.5	4.0	3.3	3.5	3.4	2.6	1.0	0.9	4
5	1.3	1.8	2.9	2.7	3.0	3.3	2.9	3.0	3.4	2.6	1.2	1.0	5
6	1.5	1.8	2.9	2.4	2.2	2.8	2.3	2.7	3.4	2.6	1.4	1.1	6
7	1.4	1.4	2.2	1.5	1.3	1.9	1.6	1.9	2.3	1.7	1.2	1.1	7
8	1.3	1.0	1.6	-0.8	-0.3	-1.0	-0.8	-1.0	1.4	-1.0	1.0	1.2	8
9	-0.6	-0.2	-0.5	+0.3	+0.7	+0.2	0.0	0.0	-0.1	+0.3	-0.2	0.9	9
10	+0.1	+0.2	+0.5	1.1	1.4	1.3	+0.6	+0.8	+0.9	1.4	+0.4	-0.4	10
11	1.0	1.0	1.5	2.0	2.0	2.0	1.3	1.5	1.6	2.1	1.3	+0.4	11
12	1.7	1.6	2.2	2.5	2.4	2.6	1.9	2.2	2.3	2.9	2.0	1.3	12
13	2.0	2.0	2.7	3.0	2.6	3.1	2.4	2.8	2.9	3.0	2.2	1.8	13
14	2.2	2.2	3.0	3.1	2.9	3.7	3.0	3.1	3.1	3.1	2.5	2.2	14
15	2.0	2.0	2.9	3.0	2.8	3.6	3.3	3.2	3.2	3.0	2.0	2.0	15
16	1.7	1.7	2.9	2.9	2.8	3.5	3.6	3.2	3.2	2.6	1.5	1.6	16
17	1.2	1.2	2.4	2.3	2.3	3.0	3.2	2.8	2.7	2.0	+0.7	1.0	17
18	0.7	0.9	1.8	2.0	2.0	2.5	2.9	2.2	2.0	1.4	-0.1	+0.3	18
19	+0.1	0.6	1.0	1.0	1.3	1.5	2.0	1.5	1.2	+0.6	0.4	0.0	19
20	-0.3	+0.1	+0.4	+0.5	+0.8	+0.5	+1.1	+0.7	+0.3	-0.2	0.9	-0.2	20
21	0.5	0.0	-0.1	-0.3	0.0	0.0	0.0	0.0	-0.1	0.9	0.9	0.2	21
22	0.8	-0.3	0.6	1.1	-0.7	-0.8	-1.0	-0.6	0.7	1.4	0.9	0.2	22
23	-0.8	-0.5	-1.0	-1.8	-1.5	-1.5	-1.7	-1.2	-0.8	-1.5	-0.7	-0.3	23

Combining the above with the corresponding values in 1855 (*R. O. Vol. xvi. p. [xxiv]*), we obtain the following table, as the result of 2 years' observation.

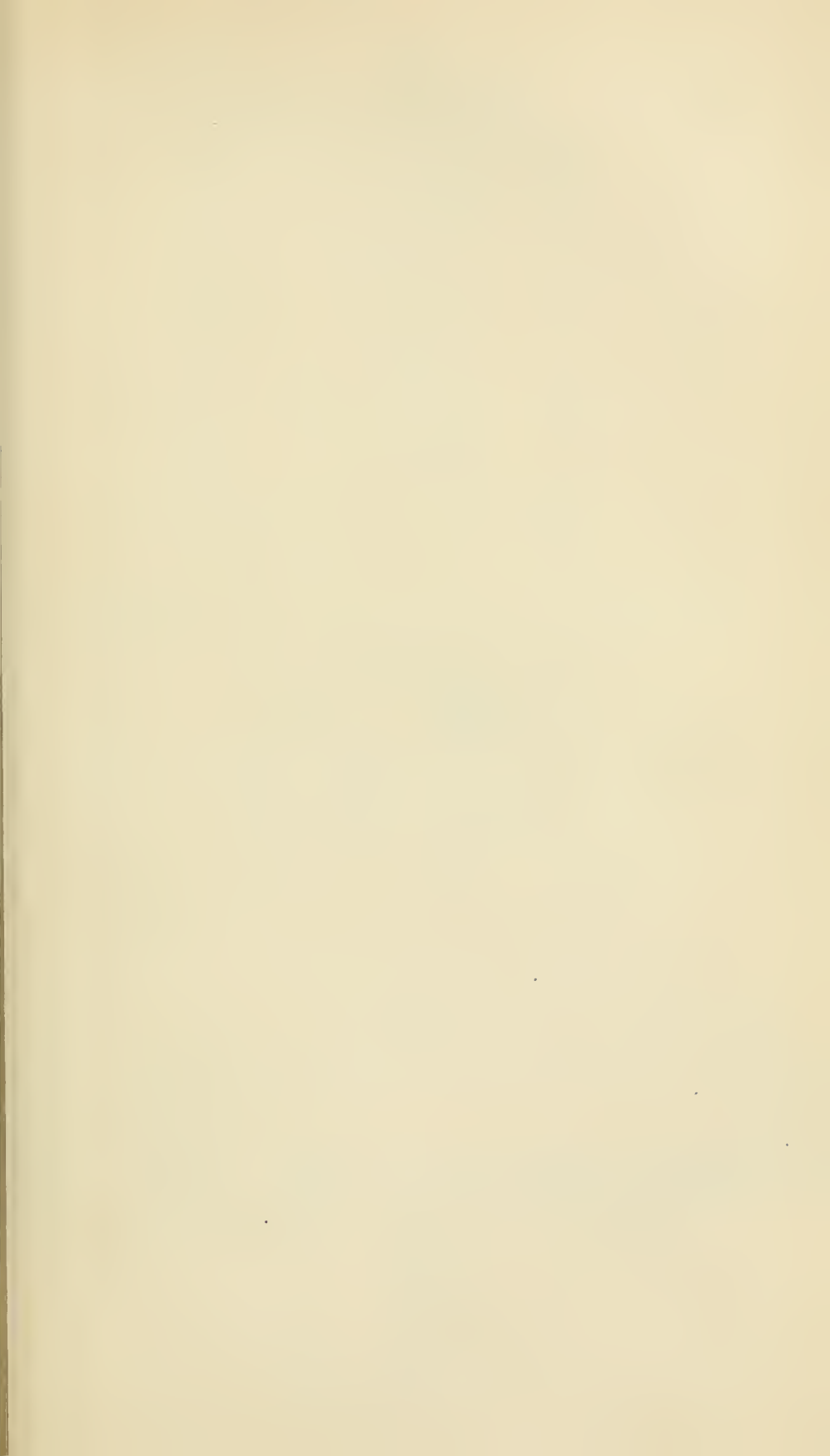
HORARY VARIATIONS OF THE WET-BULB HYGROMETER FROM THE MEAN OF THE DAY, FROM TWO YEARS' OBSERVATION.

Hour.	Jan.	Feb.	Mch.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Hour.
0	-0.7	-1.3	-1.6	-2.5	-2.7	-2.7	-2.6	-2.0	-1.9	-1.7	-0.9	-0.5	0
1	0.7	1.4	2.0	2.8	3.4	3.2	3.0	2.6	2.2	1.8	1.0	0.6	1
2	0.7	1.5	2.3	3.3	4.0	3.7	3.4	3.2	2.6	1.9	1.0	0.6	2
3	0.7	1.6	2.5	3.5	4.2	3.9	3.5	3.6	3.0	2.2	1.2	0.7	3
4	0.8	1.7	2.7	3.7	4.2	3.9	3.5	4.0	3.4	2.4	1.4	0.7	4
5	1.2	1.8	2.7	3.4	3.5	3.2	3.1	3.5	3.3	2.4	1.5	0.8	5
6	1.4	1.8	2.5	3.0	2.6	2.5	2.4	3.1	3.1	2.2	1.5	1.0	6
7	1.3	1.6	1.8	1.9	1.6	1.6	1.7	2.3	3.0	1.5	1.4	1.1	7
8	1.3	1.3	1.2	-0.9	-0.4	-0.5	-0.6	-1.0	-1.0	-0.8	1.1	1.2	8
9	0.7	-0.4	-0.2	+0.3	+0.8	+0.6	+0.4	+0.3	+0.3	+0.2	-0.4	1.0	9
10	-0.1	+0.3	+0.8	1.5	1.7	1.5	1.1	1.3	1.4	1.3	+0.3	-0.2	10
11	+0.7	1.3	1.9	2.4	2.4	2.1	1.8	2.2	2.3	2.0	1.2	+0.7	11
12	1.4	2.1	2.8	3.2	2.8	2.6	2.3	2.6	3.0	2.7	2.0	1.0	12
13	1.8	2.5	3.3	3.6	3.0	3.0	2.7	3.0	3.4	2.9	2.4	1.9	13
14	2.1	2.8	3.8	3.8	3.4	3.4	3.1	3.2	3.5	3.0	2.6	2.0	14
15	1.9	2.6	3.3	3.7	3.3	3.5	3.3	3.3	3.5	2.8	2.2	1.8	15
16	1.7	2.2	3.0	3.6	3.2	3.4	3.5	3.2	3.3	2.3	1.7	1.3	16
17	1.2	1.7	2.2	3.0	2.8	3.0	3.1	2.9	2.7	1.7	1.0	0.9	17
18	0.7	1.2	1.2	2.5	2.2	2.4	2.6	2.4	2.0	1.0	+0.2	+0.2	18
19	+0.1	0.7	+0.4	1.4	1.5	1.5	1.8	1.5	1.1	+0.3	-0.2	0.0	19
20	-0.4	+0.2	-0.3	+0.5	+0.6	+0.5	+0.8	+0.7	+0.2	-0.6	0.7	-0.2	20
21	0.5	-0.2	0.7	-0.4	-0.4	-0.2	-0.5	-0.2	-0.5	1.0	0.8	0.2	21
22	0.7	0.7	1.1	1.3	1.2	1.2	1.3	0.8	1.3	1.5	1.0	0.2	22
23	-0.7	-1.0	-1.4	-2.2	-2.0	-2.0	-1.9	-1.5	-1.5	-1.6	-1.0	-0.3	23

The same expression was used as in 1855, for deducing the equivalents to our notation in terms in Fahrenheit's scale, viz.

$$\text{Equivalent} = 82.7 - 4.730n$$

The excesses of the Hygrograph over the Standard Wet Bulb at 10° are as follows.



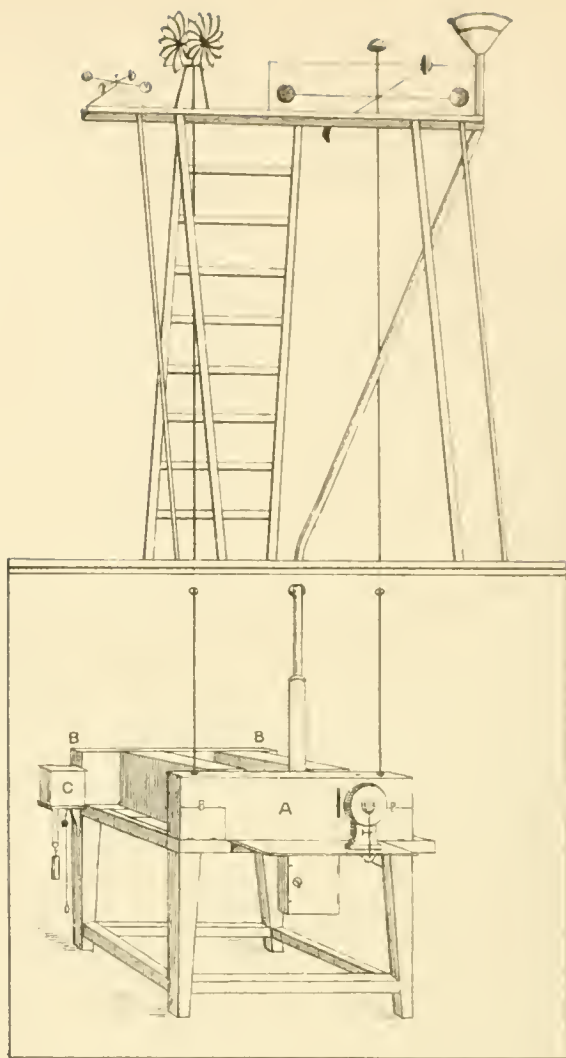


Fig. 1

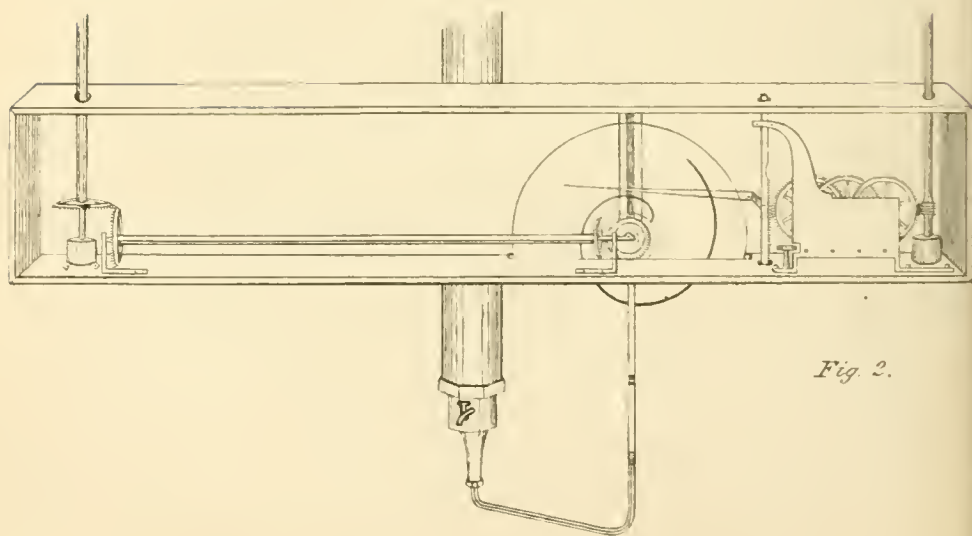


Fig. 2.

	Wet Bulb.	Hygro- graph.	Excess of Hygro- graph.	Adopted Correc- tion.
	°	°	°	°
January	38.6	38.6	0.0	0.0
February.....	41.0	41.5	+ 0.5	0.0
March.....	38.5	37.2	- 1.3	+ 1.2
April	45.1	45.1	0.0	0.0
May	47.3	47.4	+ 0.1	0.0
June	55.2	55.4	+ 0.2	- 0.2
July	57.7	58.2	+ 0.5	- 0.4
August	59.8	59.8	0.0	- 0.4
September ...	52.7	52.8	+ 0.1	- 0.5
October	50.6	51.1	+ 0.5	0.0
November ...	40.2	40.1	- 0.1	- 0.2
December	39.1	39.1	0.0	0.0

In deducing the horary equivalents at the foot of the Register of the month of March, the correction was inadvertently *subtracted*, instead of *added*; therefore all the values there given are to be increased 2°.4.

Anemograph.

This Instrument, constructed by Mr. P. Adie, of the Strand, London, was briefly described in our last volume, but its construction will be better understood by referring to the accompanying Plate.

Fig. 1 represents a section of the room with the Instrument at work.

A, is a flat case containing the mechanism, with a slot on the right hand, through which passes the condensed light from a gas flame, which, with the condenser, is shown in the Plate.

B B is another flat case, containing the prepared paper placed in a frame, with a glass face fronting the light. C is a Clock, with which the frame in B B is connected by a string passing over a wheel in front of the dial plate, which makes one revolution in 24 hours. The wheel is 12 inches in circumference; consequently the paper in the case is carried forward $\frac{1}{2}$ an inch in an hour.

Fig. 2 represents the case A with its cover taken off to show the mechanism of the Instrument.

At the right hand is seen a portion of the rod, turning between dead centres, which carries, near its upper extremity, a velocity gauge of Dr. Robinson's construction, the hemispherical cups being 4 inches in diameter, and the arms, which support them, 4 feet in length from the

centre of one cup to the centre of the other. An endless screw, near the lower extremity of the rod, sets in motion the train of wheels shown in the figure. The last wheel of the train works into an upright shaft, to which is attached an horizontal index, long enough to project beyond the slot through which the light is admitted. This index, intercepting the light in its passage, produces on the photographic paper, when submitted to the developing bath, the effect of a white line on a dark ground, the inclination of which line to the Zero line of the picture will depend on the relative velocity of wind to that of the paper.

The tube represented near the middle of the figure is the receiver of a rain gauge; shown on the right hand at the upper part of Fig. 1. The rain thus received pressing on one end of a column of mercury in a syphon, forces up the other end, on which rests a float carrying a fine wire, bent at right angles at the top,—the bent part being sufficiently long to cross over the slot. This serves for an index, and is so adjusted, that, when the gauge is empty, it corresponds with the Zero of the picture; but when it rains, it is carried up by the column of mercury. This part of the apparatus has not acted quite successfully, in consequence, as we have lately discovered, of a defect in the float.

Near the left hand of the figure is shown a part of a rod, which carries at its upper end a pair of vanes, like those of a windmill, connected by a short bar, having an endless screw in the middle, working in a toothed wheel. By this means excessive oscillation is checked, yet the vanes are sufficiently active to be moved by very light winds.

Changes in the direction of the vanes are communicated, by means of cog wheels and a connecting rod, as shown in the figure, to a glass disc, having a spiral engraved upon it, the line being sufficiently broad to intercept the light. This curve is the involute of a small circle, described round the centre of the glass disc. The periphery of this small circle is the Zero line of the picture, and the principle of registration depends on the well-known property of this spiral, that its distance from the generating curve, measured in the direction of any diameter of that curve, is directly proportional to the extent of the arc through which the latter is moved. The spiral is so adjusted, that under a North wind its extremities are just marked at the top and bottom of the picture,—under an East wind, it advances *one* inch above the Zero line,—under a South wind, *two* inches,—under a West wind, *three* inches,—the whole extent of the field being *four* inches.

The Plate prefixed to this Introduction will sufficiently illustrate the form of registration. It represents the picture of 24 hours, commencing at 14^h (2 p.m.) of Sept. 22.

The two inclined lines represent the wind's velocity. The index is generally brought down to Zero when a fresh paper is put in; but on this occasion it was allowed to remain undisturbed until 22^h. It was then put down, and at 14^h on the 23d it had been carried nearly the whole extent of the field. For measuring the amount of wind, the same scale is applied which is used for the Barograph and Thermograph, the unit of which is $\frac{1}{4}$ of an English inch. The measures taken are the ordinates, at the even hours of the day, between the lower or Zero line of the picture, and the white line traced by the index; and the differences between the lengths of each preceding and succeeding ordinate, converted into miles, are the quantities inserted in the Register.

The direction of the wind is marked by the series of spots which run along the picture at about $\frac{3}{4}$ ths of its height. This effect is produced by the fluctuations of the vanes. The disturbance is not usually so great as in the case of this illustration.

The remaining mark on our illustration is that produced by the rain index. It begins to show itself a little before 15^h on the 22d, and rises till nearly 17^h, thus indicating the continuance of rain during that time. It then goes on horizontally (showing there was no more rain) till 10^h, when it marks another small shower of short continuance. When another paper is put in, the water is drawn off, and the index falls again to Zero.

The white perpendicular space, on the left of our illustration, is a defect in the picture, caused by an accident,—the gas light was extinguished by a violent gust of wind and rain, noticed in our Meteorological Journal under this date.

Direction of the Wind.

With regard to the notation adopted in the Register,—it will be perceived, that the direction has been recorded numerically in terms of the scale, the requisite computations being much facilitated by this arrangement; but the equivalents to each whole number, according to the ordinary notation, and in degrees of the circle, reckoning from the N. point, are given at the foot of the page, whence the intermediate values may be readily found.

The mean directions, hourly and daily, are given in degrees, counted in the order N, E, S, W.

The hourly values were found by Lambert's method, applied as follows.

$$\begin{aligned} \text{Let } A &= n \sin w + n' \sin w' + n'' \sin w'' + \&c. \\ B &= n \cos w + n' \cos w' + n'' \cos w'' + \&c. \end{aligned}$$

Where $n, n', n'', \&c.$ are the number of two-hourly periods when the wind blew from the points $w, w', w'', \&c.$ Then, θ , being the mean direction,

$$\tan \theta = \frac{A}{B}.$$

The daily direction may be found, generally, with sufficient exactness, by taking the arithmetical mean of the numbers, under the several hours, and converting them into their equivalent ares. But on days when the wind was variable, the above method was applied to them also.

The following tables were constructed with a view of showing whether there is any marked periodical change in the Wind's direction, in the course of the day.

The *first* table contains the hourly directions, copied from the Register. The *second* table gives the means for four periods, viz. from 0^h to 6^h, from 6^h to 12^h, &c. inclusive. The numbers in the columns "excess," are the differences between each period and the mean of the whole,—the *negative* sign showing that the difference, relatively to the mean direction, is *retrograde*, i.e. from N towards W; the *positive* sign that it is *direct*, i.e. from N towards E.

Hours.	July.		August.		September.		October.		November.		December.		Hours.
	Direc.	Exc.	Direc.	Exc.	Direc.	Exc.	Direc.	Exc.	Direc.	Exc.	Direc.	Exc.	
	o	o	o	o	o	o	o	o	o	o	o	o	
0	248	- 4	283	+ 7	289	+ 1	61	+ 14	315	- 2	266	+ 2	0
2	242	- 10	273	- 3	283	- 5	35	- 12	320	+ 3	270	+ 6	2
4	243	- 9	258	- 18	285	- 3	50	+ 3	313	- 4	269	+ 5	4
6	252	0	268	- 8	295	+ 7	42	- 5	312	- 5	259	- 5	6
8	258	+ 6	300	+ 24	292	+ 4	31	- 16	311	- 6	257	- 7	8
10	254	+ 2	305	+ 29	312	+ 24	40	- 7	308	- 9	258	- 6	10
12	256	+ 4	285	+ 9	286	- 2	56	+ 9	315	- 2	267	+ 3	12
14	252	0	274	- 2	262	- 26	65	+ 18	327	+ 10	270	+ 6	14
16	262	+ 10	279	+ 3	277	- 11	43	- 4	321	+ 4	260	- 4	16
18	256	+ 4	287	+ 11	277	- 11	43	- 4	329	+ 12	268	+ 4	18
20	253	+ 1	252	- 24	288	0	52	+ 5	321	+ 4	262	- 2	20
22	253	+ 1	253	- 23	306	+ 18	44	- 3	316	- 1	265	+ 1	22
Mean	252		276		288		47		317		264		

Hours.	July.		August.		September.		October.		November.		December.		Hours.
	Direc.	Exc.	Direc.	Exc.	Direc.	Exc.	Direc.	Exc.	Direc.	Exc.	Direc.	Exc.	
	o	o	o	o	o	o	o	o	o	o	o	o	
0—6	246.2	- 5.8	271.0	- 5.0	288.0	0.0	47.0	0.0	315.0	- 2.0	266.0	+ 2.0	0—6
6—12	255.0	+ 3.0	289.5	+ 13.5	296.2	+ 8.2	42.2	- 4.8	311.5	- 5.5	260.2	- 3.8	6—12
12—18	256.5	+ 3.5	281.2	+ 5.2	275.5	- 12.5	51.8	+ 4.8	323.0	+ 6.0	266.2	+ 2.2	12—18
18—0	252.5	- 0.5	268.8	- 7.2	290.0	+ 2.0	50.0	+ 3.0	327.0	+ 10.0	265.2	+ 1.2	18—0

These comparisons seem to indicate little more than a tendency to a very slight *direct* movement in the afternoon; and to a *retrograde* movement during night and morning.

Velocity of the Wind.

The velocity, given in English miles, was found as follows.

The revolution of the hemispherical cups sets in motion a train consisting of 3 wheels, the velocity of the first (nearest the shaft) to that of the third wheel (nearest the index) being as 100 : 1.

The diameter of each wheel is 3.3 inches; and their circumferences are divided into 130 teeth.

The distance between the centres of the cups is 4 feet.

Therefore, 3.142 being the ratio of the circumference of a circle to its diameter taken as unity; and 5280 the number of feet in a mile,

$$\frac{13000 \times 4 \times 3.142}{5280} = 30.94 \text{ miles}$$

will represent the distance travelled by the cups in one revolution of the *third* wheel, during which the index will have been raised a quantity equal to the diameter of the wheel, viz. 3.3 inch, or 13.2 units of our scale.

According to Dr. Robinson's theory, the velocity of wind to that of the cups is as 3 : 1, supposing the friction of the gauge to be insensible. But, in its present position,—only 22 feet above the ground, where the wind is frequently very feeble,—I have not been successful in mounting the Instrument, so as to annihilate the effect of friction.

In order, therefore, to obtain a measure of the obstruction arising from this cause, beside the larger gauge is placed a small portable Instrument, also on Dr. Robinson's principle, designed by Professor C. P. Smythe.

The length of the arms, from centre to centre of the cups, in this apparatus, is 12 inches; and the number of revolutions is recorded by a series of dials, moved by an endless screw near the lower extremity of a short spindle. It is very sensitive, moving under the lightest air.

Assuming, therefore, that the conditions of the theory hold more perfectly with the smaller than with the larger gauge, the former has been used as a measure to check the inequalities of the latter, by comparing daily their respective indications.

These comparisons show that the velocity of the smaller to that of the greater gauge is as 8 : 7. Though this ratio does not obtain rigidly, being somewhat too small under light, and too great under heavy winds, yet the approximation is near enough to induce me to adopt it.

It has been just mentioned, that 13.20 units of our scale is equivalent to 30.94 miles. Therefore *one* unit = 2.344 miles. According to the above theory, to find the wind's velocity, this number should be multiplied by 3. Hence each unit of the scale represents 7.03 miles of wind, whereas it has

been assumed to represent 8 miles. Thus the numbers in the several columns of the Register are 8 times the difference between the measured ordinates at the hours mentioned in the several titles to those columns.

At the foot of the page is given the mean bi-hourly velocity; and the proportion it bears to the mean velocity of the day.

For all purposes of comparison I prefer referring to the latter values, rather than to the former, which, as they represent the velocity at an elevation of only 22 feet above the surrounding ground, in an unexposed situation, fall short of the velocity measured by the same method at most other stations. From some recent comparisons we have made with two similar gauges of Professor Smyth's construction, I find the velocity on the top of our tower, 110 feet above the ground, is very nearly 2.25 times greater than at our present station.

The mean relative velocities from July to December may be represented by the expression,

$$V_x = 1.0 + 0.335 \sin(x + 266^\circ) + 0.072 \sin(2x + 99^\circ) + 0.016 \sin(3x + 166^\circ);$$

the calculated and observed values being as follows.

Hour.	Velocity.		
	Calculated.	Observed.	Relative error of calculation.
0—2	0.742	0.735	— .003
2—4	0.709	0.683	— .038
4—6	0.763	0.765	+ .002
6—8	0.921	0.890	— .035
8—10	1.126	1.095	— .028
10—12	1.308	1.323	+ .012
12—14	1.403	1.372	— .023
14—16	1.343	1.355	+ .009
16—18	1.145	1.160	+ .014
18—20	0.935	0.940	+ .006
20—22	0.822	0.830	+ .009
22—0	0.784	0.795	+ .014

The numbers in the column of relative errors represent the term, k , of the factor $(1 + k)$ by which the calculated values are to be multiplied, to make them equal to the observed values. Hence the probable error of this factor = ± 0.010 .

It may not be uninteresting to compare this law obtained from 6 months' observations, with that obtained by Mr. Hartnup, from the observations of 4 years, from 1852—55, with the excellent Anemometer of the Liverpool Observatory, constructed by Mr. Ostler, to whose well-known exertions this branch of Meteorology is deeply indebted.

Mr. Hartnup has given a comprehensive summary of his observations in the *Transactions of the Historic Society of Lancashire and Cheshire*, Vol. viii. p. 212, &c.

In his Table viii. Mr. Hartnup has given the mean hourly horizontal motion of the Wind for each meteorological quarter of the year, and thence the mean hourly motion for the whole year. Reducing the hourly to two-hourly intervals, we obtain the following values.

Hours.	Velocity in Miles.	Hours.	Velocity in Miles.
0—2	22.08	12—14	29.93
2—4	22.30	14—16	29.31
4—6	22.56	16—18	27.38
6—8	23.85	18—20	24.81
8—10	26.17	20—22	23.17
10—12	28.42	22—0	22.71

Which furnish the following expressions in terms of relative velocity,

$$V_x = 1.0 + 0.153 \sin(x + 264^\circ 50') + 0.031 \sin(2x + 75^\circ 30')$$

Whence

Hour.	Relative Velocity.		
	Calculated.	Observed.	Relative error of calculation.
0—2	0.878	0.875	+ .003
2—4	0.882	0.885	+ .003
4—6	0.904	0.895	— .009
6—8	0.956	0.946	— .010
8—10	1.043	1.038	— .005
10—12	1.133	1.127	— .005
12—14	1.182	1.187	+ .004
14—16	1.160	1.162	+ .002
16—18	1.080	1.086	+ .006
18—20	0.984	0.984	.000
20—22	0.915	0.918	+ .003
22—0	0.883	0.892	+ .010

Here, as might be expected from the greater length of time over which the series extends, the probable error is $\pm .004$,—only $\frac{2}{5}$ this of what we found from our own observations. But on comparing the two expressions, from which the calculated values are derived, it will be perceived, that the supplementary angles of the second term of both expressions are nearly identical. Our co-efficient of that term is somewhat larger than that of Liverpool, which is probably, in a great measure, owing to the circumstance, already mentioned, that our measure of velocity is somewhat in defect under light, and in excess under strong winds.

The Meteorological Journal, pp. [51—60.]

The mean indications of the Barometer and Thermometers in the 2d, 3d, and 4th columns of this Journal, are the equivalents to the mean of the 12 daily readings of the several Instruments, given in the foregoing Registers; or, on those days when the Register was imperfect, to the mean of the recorded readings, corrected for horary changes.

The minimum and maximum of Dry and Wet Bulb were taken from self-registering Instruments, which were regularly compared with the Standards, and corrected for the differences observed between them. These Instruments are observed daily at 10^h, and the minimum reading is supposed to have occurred on the day of observation, and the maximum on the day before.

The Rain is received in a circular vessel of 10 inches diameter, placed on the ground, in an exposed situation, and the quantity is measured in a graduated glass tube of one inch diameter. It is examined every morning at 10^h, and when there has been any Fall, the amount is entered opposite the day of examination.

The direction of the Wind, indicated by an ordinary Weather-cock, is noted at 10^h and 14^h daily.

The Force of Wind is estimated by observing its effect on surrounding objects. Our scale extends from 0 to 6, the extreme terms denoting, respectively, a calm, and a storm.

The amount of Cloud is estimated from 0 to 10; 0, representing a clondless, and 10, an overcast, sky. The numbers here given are the means of three estimates, daily, at 10^h, 14^h, and 22^h.

The last column gives the general description of the day.

The days of the Moon's changes, of her perigee and apogee, of the occurrence of the extremes of atmospheric pressure, and of remarkable meteoric phenomena, are given in the foot-notes.

Comparisons of the Monthly Results with the Mean of 25 years,
pp. [51—52.]

The normal values in these tables, except the normal direction &c. of the wind, are taken from Vol. 15, pp. [xxvii], [xxviii], and are derived from 25 years' observation. The normal direction &c. of the wind were found from elements given in Vol. 14, p. [xv].

The columns entitled "probable excess" show the amount of variation to which the several elements are liable, according to the theory of probabilities. They are intended to show the limits within which it is an even chance, that the monthly means of one year will agree with those of another.

The columns entitled "excess in 1856" give the differences between the several results in 1856, and the mean. These quantities applied algebraically to the mean values, will give the monthly means in 1856; and a comparison of them, with the corresponding "probable excesses," will show whether any month has been abnormal, or not, with regard to any particular element.

For finding the mean direction of the wind, we have followed Lambert's method of resolving each wind into its easterly or westerly, and northerly or southerly, components, and then finding the direction, and force, of the resultant of the whole.

In the application of this method, for the sake of simplicity, the direction of the wind, which is noted to 16 points of the Compass, has been reduced to 8, by adding to the number of days on which the principal winds prevailed, half the number of days when it blew from the intermediate points; thus,

$$N = \frac{1}{2}NNW + N + \frac{1}{2}NNE; \quad NE = \frac{1}{2}NNE + NE + \frac{1}{2}ENE, \text{ \&c.}$$

Then, if we make

$$A = E - W + (\overline{NE} - \overline{NW} + \overline{SE} - \overline{SW}) \cdot \sin 45^\circ$$

$$B = W - S + (\overline{NE} - \overline{SE} + \overline{NW} - \overline{SW}) \cdot \cos 45^\circ$$

and,

θ = the angle of the resultant with the Meridian,

$$\tan \theta = \frac{B}{A}$$

The quadrant to be determined by the ordinary rules of trigonometry; the order of progression being from N towards E.

Then, n , being the number of days in the month,

$$\text{Force of resultant} = \frac{\sqrt{A^2 + B^2}}{n}.$$

This is the value we have called "Intensity." Assuming the velocities equal, and that the intensity of the wind, coming from all directions, during the month = 1; the numbers in this column show its relative intensity in the mean direction.

The columns $\frac{W}{E}$, $\frac{S}{N}$, show the proportion of westerly to easterly, and of southerly to northerly, winds.

The following are the elements from which this table was constructed.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm, Variable, &c.
	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.
January	5.50	3.25	1.75	3.50	5.75	4.50	2.75	4.00	0.00
February	3.50	3.75	1.25	2.25	5.00	7.50	3.00	2.75	0.00
March	6.75	9.25	9.50	1.25	0.75	0.25	1.25	2.00	0.00
April	4.75	6.25	2.00	0.75	5.25	6.50	3.25	1.25	0.00
May	10.25	4.00	0.25	1.00	2.00	8.00	3.25	2.25	0.00
June	4.75	0.25	0.00	0.25	1.25	7.75	9.00	6.25	0.50
July	3.75	1.25	0.25	0.00	2.75	6.50	13.00	3.50	0.00
August	4.00	5.00	4.00	0.50	4.00	3.50	8.00	0.50	1.50
September...	4.25	2.25	2.25	0.25	2.50	3.75	9.75	3.00	2.00
October	6.50	9.25	1.25	1.25	3.75	2.50	4.50	0.00	2.00
November ...	6.25	1.25	0.00	0.00	0.00	0.00	10.00	5.50	7.00
December ...	2.75	1.75	0.00	1.00	3.25	5.00	11.25	1.50	4.50
Mean	63.00	47.50	22.50	12.00	36.25	55.75	79.00	32.50	17.50
Average of } 25 years' }	41	66	20	11	46	119	44	19	.....

The direction is given in degrees of the circle, commencing from N, and counted in the direction E, S, W. The *positive* sign, in the column "excess," shows that the difference between the direction in 1856 and the normal direction follows this order; and the *negative* sign shows the reverse.

Pressure of Dry Air under different Winds, [pp. 65—66.]

This table was constructed as follows. The mean daily direction was taken from the Journal, (omitting those days on which the change amounted to 180° ;) together with the corresponding readings of the Barometer. The number of points were then reduced to 8, by combining with the number of days under the principal points those under the next preceding, and the next following, allotting to each its due weight, according to the number of observations; thus,

$$\text{NNW} + \text{N} + \text{NNE} = \text{N}; \quad \text{NNE} + \text{NE} + \text{ENE} = \text{NE}, \text{ \&c.}$$

The 1st column contains the mean date of each of these groups: the 2d, the mean indication of the Barometer; the 3d gives the force of vapour, according to the 2d Edition of Mr. Glaisher's tables; the 4th, the reduction of the mean monthly to the mean annual pressure, taken from the following table, which is the result of 25 years' observation. The object of this correction is to make the several results directly comparable with each other, although during some months there may be, and frequently is, altogether a failure of particular winds.

Montb.	Atmo- spheric Pressure.	Pressnre of Vapour.	Pressure of Dry Air.	Excess from Annual Mean.
	in.	in.	in.	in.
January	29.721	.203	29.518	+ 0.096
February.....	.700	.200	.500	+ .078
March.....	.690	.206	.484	+ .062
April.....	.700	.235	.465	+ .043
May.....	.733	.306	.427	+ .005
June.....	.725	.391	.334	— .008
July.....	.721	.425	.296	— .126
August .....	.730	.394	.336	— .086
September ...	.718	.338	.380	— .042
October .....	.684	.289	.395	— .027
November ...	.677	.247	.430	+ .008
December ....	.707	.214	.493	+ .071
Mean.....	29.709	.287	29.422	

The differences in this table from the corresponding one in our last volume, are in consequence of our having adopted the *second* (instead of the *first*) Edition of Mr. Glaisher's *Hygrometrical Tables*, in which he has used Regnault's elements, instead of Dalton's.

The pressure of Dry Air in 1856 = $29.725 - 0.298 = 29.427$ inches; the excesses of the several results of the table at pp. [65—66], from this value, are given in the 2d column of the table below. The 4th column contains the corresponding excesses, from the mean pressure, in 1853—55 (Vol. 16, p. [xxviii]). The 6th column gives the results of the four years, combined according to the number of observations. The mean pressure, in the last column, was obtained by adding the mean excesses to 29.422, the general mean annual pressure of dry air, as given in the foregoing table.

	Excess in 1856.	No. of Obs.	Excess in 1853—55.	No. of Obs.	Mean Excess.	No. of Obs.	Mean Pressure of Dry Air
	in.		in.		in.		in.
N	+0.141	76	+0.092	233	+0.104	309	29.526
NE	+ .167	59	+ .123	181	+ .134	240	.556
E	+ .035	31	+ .028	104	+ .030	135	.452
SE	— .184	14	— .055	54	— .086	68	.336
S	— .269	41	— .104	180	— .143	171	.279
SW	— .213	73	— .102	268	— .126	341	.296
W	— .002	94	— .061	254	— .044	348	.378
NW	+ .048	51	+ .043	165	+ .044	216	.466

Force of Vapour.

Reducing the pressure of vapour, given in the 3d column of the several sections of the table at pp. [65—66], to annual values, (by applying corrections derived from the column of the table at p. xxvii, which gives the Pressure of Vapour,) we find the pressure under different winds as follows.

	Tabular Mean.	Reduction to Annual Mean.	Mean Pressure of Vapour.
	in.	in.	in.
N	0.274	.000	0.274
NE	.272	+ .015	.287
E	.269	+ .021	.290
SE	.287	+ .044	.331
S	.329	+ .016	.345
SW	.345	— .012	.333
W	.324	— .026	.298
NW	.290	— .007	.283

in.
Subtracting 0.298, which is the mean pressure during the year 1856, from these quantities, severally, we obtain the excesses under each wind, as given in the 2d column of the table below; and combining them with the corresponding results in 1853—55, (Vol. 16, p. [xxix],) we have the mean of 4 years' observation, given in the 6th column.

	Excess in 1856.	No. of Obs.	Excess in 1854-55.	No. of Obs.	Mean Excess.	No. of Obs.
	in.		in.		in.	
N	— .024	76	— .026	233	— 0.026	309
NE	— .012	59	— .017	181	— .016	240
E	— .008	31	— .002	104	— .004	135
SE	+ .033	14	+ .005	54	+ .011	68
S	+ .047	41	+ .044	130	+ .045	171
SW	+ .035	73	+ .031	268	+ .032	341
W	.000	94	+ .024	254	+ .018	348
NW	— .015	51	— .021	165	— .019	216

in.
The general mean annual pressure of vapour is 0.287. Therefore by adding to this value the mean excesses in the table, we obtain the mean pressure of vapour under different winds; which again, being added to the corresponding pressure of dry air, gives the atmospheric pressure. These several values are contained in the following table.

	Mean Pressure of Vapour.	Mean Pressure of Dry Air.	Mean Atmospheric Pressure.
	in.	in.	in.
N	0.261	29.526	29.787
NE	.271	.556	.827
E	.283	.452	.735
SE	.298	.336	.634
S	.332	.279	.611
SW	.319	.296	.615
W	.309	.378	.687
NW	.268	.466	.734

Temperature under different Winds, pp. [67—68.]

This table was formed in the same manner as that just described

The reductions to annual temperature were found by subtracting the temperature corresponding to the mean date, (in the column of normal temperatures in the table at p. [71],) from $48^{\circ}.6$, which is the general mean annual temperature.

The excesses of the several mean values from $48^{\circ}.7$, which was the mean temperature of 1856, compared and combined with those of 1853—55, (Vol. 16, p. [xxx]), are given in the 6th column. The values in the last column = $48^{\circ}.6 +$ mean excess.

	Excess in 1856.	No. of Obs.	Excess in 1853—55.	No. of Obs.	Mean Excess.	No. of Obs.	Mean Tempera- ture.
	o		o		o		o
N	— 2.3	76	— 2.4	233	— 2.4	309	46.2
NE	— 2.5	59	— 2.6	181	— 2.6	240	46.0
E	— 0.5	31	— 1.0	104	— 0.9	135	47.7
SE	+ 2.8	14	+ 0.5	54	+ 1.0	68	49.6
S	+ 4.6	41	+ 3.1	130	+ 3.5	171	52.1
SW	+ 3.5	73	+ 2.8	268	+ 3.0	362	51.6
W	+ 1.0	94	+ 1.7	254	+ 1.5	348	50.1
NW	— 1.7	51	— 0.5	165	— 0.8	216	47.8

Estimated Amount of Wind and Cloud under different Winds, p. [69.]

This table was formed in the same way as the preceding, by taking out the estimates from the Journal, and distributing them among the different winds in the manner described at p. [xxvii.]

The quantities given are mere estimates, and possess only a certain degree of relative accuracy.

Fall of Rain under different Winds, p. [70.]

The Rain Gauge is examined every morning at 10^h, and if there has been any fall, the quantity is entered opposite the day of examination.

This table was formed in the same way as the preceding. But it happens not unfrequently, that the wind shifts its direction in the interval between successive examinations; in such cases the measured quantity is distributed between the winds which prevailed at the time of examination, and 14^h of the day before.

In reducing the intermediate points to the eight principal points of the Compass, we have taken in this table

$$N = \frac{1}{2} NNW + N + \frac{1}{2} NNE; \quad NE = \frac{1}{2} NNE + NE + \frac{1}{2} ENE, \&c.$$

The following table shows the relative quantity of Rain collected in the gauge placed on the ground, (which is entered in the Journal,) and in another gauge 22 feet above the ground, which is always measured at the same time.

Month.	Ground.	22 feet.	Ratio.	5-year Ratio.
	in.	in.	in.	in.
January	2.937	2.368	1.242	1.192
February.....	1.314	1.135	1.158	1.218
March.....	0.936	0.783	1.195	1.222
April	2.551	2.034	1.254	1.198
May	4.334	3.517	1.232	1.154
June	2.553	2.176	1.173	1.116
July	0.621	0.555	1.119	1.098
August	3.224	2.461	1.310	1.104
September ...	3.167	2.625	1.207	1.118
October	2.374	2.130	1.114	1.132
November ...	0.950	0.768	1.237	1.144
December	2.047	1.777	1.152	1.164
Year.....	27.008	22.329	1.210	1.155

The following is the distribution of Rain, with regard to quantity.

Month.	Fall under												Sum.	Mean of 25 years.	Prob. Excess.	Excess in 1856.
	Inch.															
	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	1.0	1.5				
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	days.	days.	days.
January.....	5	2	8	3	1	1	...	...	...	...	...	...	20	10.08	+ 3.19	+ 9.9
February.....	1	1	1	3	1	...	...	...	...	...	...	...	7	10.12	2.30	- 3.1
March.....	2	...	...	...	1	...	1	...	...	...	...	...	4	9.28	3.64	- 5.3
April.....	5	3	...	3	1	...	1	1	...	...	...	...	14	9.84	3.11	+ 4.2
May.....	5	3	4	1	1	2	1	...	...	...	...	1	18	9.48	2.96	+ 8.5
June.....	1	2	...	2	2	...	...	...	...	...	...	1	8	11.52	2.69	- 4.5
July.....	4	2	3	...	...	...	...	...	...	...	...	...	9	11.36	2.41	- 2.4
August.....	3	4	1	3	1	...	...	...	1	1	...	...	14	11.32	2.75	+ 2.7
September...	...	1	5	2	2	...	1	1	...	...	...	...	12	10.96	2.39	+ 1.0
October.....	9	2	3	2	2	...	1	...	...	...	...	...	19	11.80	3.21	+ 7.2
November...	9	2	1	...	...	1	...	...	...	...	...	...	13	12.24	2.90	+ 0.8
December...	5	2	4	3	1	...	...	...	...	...	...	...	15	11.48	3.61	+ 3.5
Sum.....	49	24	30	22	13	4	5	2	1	1	...	2	153	129.48	+ 11.04	+ 22.5

TABLE SHOWING THE OCCURRENCE OF OCCASIONAL METEORIC PHENOMENA
IN EACH MONTH OF THE YEAR 1856.

Month.	Snow.	Hail or Sleet.	Aurora Borealis.	Thunder and Lightning.	Thunder only.	Lightning only.
	Days.	Days.	Days.	Days.	Days.	Days.
January	3	3	...	...	...	1
February.....	3	...	...	...	...	1
March.....	1	...	...	...	...	...
April.....	...	1	...	...	...	...
May.....	...	3	...	1	...	1
June .....	...	...	...	1	1	...
July .....	...	...	...	...	...	2
August .....	...	...	...	...	...	2
September ...	...	1	...	1	...	1
October .....	...	...	...	...	...	3
November....	1	...	...	...	...	...
December	6	...	...	...	...	1
Sum.....	14	8	0	3	3	12
Mean of 25 years }	10.1	3.8	1.1	3.5	3.6	3.6

Mean Temperature for every 5 Days, p. [71.]

The column in this table containing the normal mean temperature was constructed from the observations made daily, at 10^h, during 25 years, reduced to the mean of the day by applying the Greenwich corrections. The values in the column of temperature of 1856, are the 5-day means of our Journal at pp. [51—62.]

It will be seen by this table, that the normal periods of extreme and mean temperature, at this station, are,

Minimum Jan. 11—15.

Spring Mean..... April 26—30.

Maximum..... July 31—Aug. 3.

Autumn Mean Oct. 13—17.

Oscillations of the Barometer, pp. [72—74.]

This table is intended to show all the variations of the Barometer, throughout the year 1856, amounting to, or exceeding, $\frac{1}{10}$ th of an inch; so that a graphic projection of the quantities given will represent the undulations of the atmosphere which occurred during the year, beyond the above limits, and the time at which the changes took place, within two hours.

The latter element might have been given more precisely, by referring to the original photographs; but this appeared to be a needless refinement.

The construction of the table is simply this;—the recorded quantities in the Register were followed (disregarding changes less than 0.1 inch) until they reached their maximum or minimum limit, and then they were again traced to the other extreme. These extremes, and the times at which they occurred, are given in the table;—to which is added, the direction of the wind.

After July 16, when the Anemograph was erected, we are able to give the direction corresponding exactly to the times of the extremes. Before that date, the wind was only observed twice a day, and as those times seldom coincided with the time of a Barometric extreme, the two directions are given, which were noted at the observation next before and next after the event.

Changes of Wind, &c. pp. [74—76.]

This table exhibits the changes, exceeding 45° , which took place in the wind's direction from 1856 July 16 to December 31, together with the attendant circumstances, as shown by the Register.

The successive directions given in the Register, not differing from each other more than 2 units of the scale, (equivalent to 45° .) were grouped together, and their means taken. Then, if among the several groups thus formed, it was found that the means of 2 or more successive groups fell within the above limit, they again were grouped together, allotting to each group a weight proportional to the time of continuance.

The *second* column gives the intervals of time comprehended by such groups.

The *third*, the number of two-hourly periods contained in these intervals.

The *fourth* and *fifth* columns show the direction in terms of the scale, and of the Compass, approximately.

The *sixth* column gives the direction of change, whether *direct*, i. e. in the order N towards E; or *retrograde*, i. e. in the order N towards W. The former is indicated by the *positive*, the latter by the *negative*, sign.

The *seventh* column gives the horizontal distance travelled by any wind during its continuance.

The *eighth*, the indication of the Barometer at the *end* of each period.

If any change took place in the Barometer during the continuance of any wind, the time, and the extreme readings are given in the *ninth* and *tenth* columns.

From this table we deduce the following results.

Month.	No. of Changes.	Direction of Change.		Duration.	
		+	-	+	-
July 16—31.	10	6	4	256 hrs.	132 hrs.
August.....	13	7	6	390	296
September...	20	6	14	236	460
October.....	13	12	1	796	70
November....	17	11	6	396	224
December....	13	6	7	246	478
Sum.....	86	48	38	2320	1660

Hence the ratio of *direct* to *retrograde* changes is as 6 : 5 nearly.

The mean duration of winds which arrived in *direct* order, was 48.34 hours, and of those which arrived in *retrograde* order, 43.65 hours.

Arranging the results in the table under different winds, we have as follows.

No. of Changes.		Direction of Change.		Duration.	Distance travelled.
		+	-	Hours.	Miles.
8 to	N	6	2	178	336
4	N N E	4	0	284	696
5	N E	3	2	380	1363
3	E N E	2	1	174	397
4	E	1	3	118	267
0	E S E	...	...	...	...
0	S E	...	...	...	...
7	S S E	4	3	206	830
8	S	...	8	250	1341
0	S S W	...	...	...	...
5	S W	4	1	126	332
15	W S W	7	8	960	5648
13	W	5	8	622	3216
1	W N W	1	0	46	198
4	N W	2	2	188	687
9	N N W	9	0	448	1442
86	.....	48	38	3980	16753

This table shows the number of times the wind arrived at the several points specified; the direction of change: the number of hours

of continuance; and the horizontal distance the wind passed over during its continuance.

Dividing the circle into quadrants; making the quadrant

$$N \text{ to } ENE = \frac{1}{2}N + NNE + NE + ENE + \frac{1}{2}E$$

$$E \dots SES = \frac{1}{2}E + ESE + SE + SSE + \frac{1}{2}S$$

&c.

we have the number of direct and retrograde changes as follows.

	Direct.	Retro- grade.	$\frac{D}{R}$
N—E	12.5	5.5	2.273
E—S	4.5	8.5	0.529
S—W	13.5	17.0	0.794
W—N	17.5	7.0	2.500

Whence it appears, that in the hemisphere W N E *direct*, while in E S W *retrograde*, changes prevailed.

From the directions and times of duration given in the foregoing table, we find, by Lambert's method, assuming the velocities equal,

$$\text{The mean direction} = 290^\circ = N 70^\circ W$$

$$\text{Intensity} \dots\dots\dots = 0.392$$

or, assigning to each wind a weight proportional to the distance travelled,

$$\text{The mean direction} = 256^\circ = S 86^\circ W$$

$$\text{Intensity} \dots\dots\dots = 0.461$$

Thus the entire distance the wind travelled over being 16753 miles,

$$16753 \times 0.461 = 7720 \text{ miles}$$

is the distance the air over our Anemometer was carried in the interval between 1856 July 16 to December 31, in the direction of almost due West.

Maximum Readings of a Black-Bulb Thermometer in the Sun, p. [77.]

The Instrument with which these observations were made is a self-registering Thermometer with a black-bulb, made by Negretti and Zambra. It is placed in a recess in the south wall of the Observatory, 5 feet above the ground, where it is fully exposed to the Sun's rays during the warmest

part of the day. The following table contains a comparison of its mean monthly indications with those of the maximum Thermometer in the shade.

Month.	Mean Maximum in		Excess in Sun.	Month.	Mean Maximum in		Excess in Sun.
	Sun.	Shade.			Sun.	Shade.	
January	53.9	44.3	+ 9.6	July	87.9	71.9	+ 16.0
February.....	55.8	46.7	9.1	August	88.1	72.9	15.2
March.....	57.7	46.3	11.4	September....	79.0	62.2	16.8
April	68.5	55.3	13.2	October.....	65.5	57.0	8.5
May	66.6	57.1	9.5	November....	56.8	46.6	10.2
June	82.5	68.3	14.3	December....	50.3	45.1	5.2

The greatest differences during each month are the following.

Month.	Excess in the Sun.	Month.	Excess in the Sun.	Month.	Excess in the Sun.	Month.	Excess in the Sun.
Jan. 12	+ 23.0	April 20	+ 24.0	July 30	+ 21.0	Oct. 1	+ 19.5
13	18.3	May 10	22.7	31	22.0	13	21.0
14	26.4	11	23.5	Aug. 2	25.5	19	21.5
Feb. 16	21.4	June 3	20.0	3	25.0	27	21.5
24	26.0	10	19.5	5	29.5	Nov. 4	19.0
29	19.5	29	22.5	6	23.0	6	24.0
March 8	20.5	July 3	23.5	7	24.0	9	18.0
22	20.0	22	22.0	31	23.0	16	20.5
27	21.0	25	21.0	Sept. 1	29.0	17	17.0
29	22.5	26	20.5	2	24.0	25	17.5
30	23.5	28	19.5	8	25.0	Dec. 27	12.0
April 4	20.2	29	20.5	24	20.5		

Indications of Schönbein's Ozonometer.

Two papers are exposed and examined daily, at 10^h, and 22^h. This table gives the indications of the papers which were *examined* at those hours. Thus the former represents the quantity of ozone exhibited during the night, and the latter the quantity during the day.

TABLES

FOR FINDING THE EQUIVALENTS TO THE DIVISIONS OF THE SCALE OF THE
BAROGRAPH AND THERMOGRAPHS IN TERMS OF ENGLISH INCHES AND
OF FAHRENHEIT'S SCALE.

TABLE FOR REDUCING THE SCALE OF THE BAROGRAPH TO INCHES.

Div.	Inches.	Div.	Inches.	Div.	Inches.	Div.	Inches.	Div.	Inches.	Div.	Inches.
— 1.0	30.557	1.7	30.175	4.4	29.792	7.1	29.408	9.8	29.024	12.5	28.640
.9	.543	.8	.161	.5	.777	.2	.393	.9	.010	.6	.626
.8	.529	.9	.147	.6	.763	.3	.379	10.0	28.996	.7	.611
.7	.515	2.0	.132	.7	.749	.4	.365	.1	.981	.8	.597
.6	.501	.1	.118	.8	.735	.5	.351	.2	.966	.9	.583
.5	.487	.2	.104	.9	.721	.6	.337	.3	.952	13.0	.569
.4	.473	.3	.090	5.0	.707	.7	.322	.4	.938	.1	.554
.3	.459	.4	.076	.1	.692	.8	.308	.5	.924	.2	.540
.2	.445	.5	.062	.2	.677	.9	.294	.6	.910	.3	.526
— 0.1	.431	.6	.048	.3	.663	8.0	.279	.7	.895	.4	.511
0.0	30.417	.7	.033	.4	.649	.1	.265	.8	.881	.5	.497
.1	.403	.8	.019	.5	.635	.2	.251	.9	.867	.6	.483
.2	.388	.9	.005	.6	.621	.3	.237	11.0	.852	.7	.469
.3	.374	3.0	29.990	.7	.607	.4	.223	.1	.838	.8	.454
.4	.360	.1	.976	.8	.593	.5	.209	.2	.824	.9	.440
.5	.346	.2	.962	.9	.578	.6	.194	.3	.810	14.0	.425
.6	.332	.3	.947	6.0	.564	.7	.180	.4	.796	.1	.411
.7	.318	.4	.933	.1	.549	.8	.166	.5	.782	.2	.397
.8	.303	.5	.919	.2	.535	.9	.152	.6	.767	.3	.383
.9	.289	.6	.905	.3	.521	9.0	.137	.7	.753	.4	.369
1.0	.274	.7	.891	.4	.507	.1	.123	.8	.739	.5	.355
.1	.260	.8	.877	.5	.492	.2	.109	.9	.725	.6	.340
.2	.246	.9	.862	.6	.478	.3	.095	12.0	.711	.7	.326
.3	.232	4.0	.848	.7	.464	.4	.081	.1	.696	.8	.312
.4	.217	.1	.834	.8	.450	.5	.067	.2	.682	.9	.298
.5	.203	.2	.820	.9	.436	.6	.053	.3	.668	15.0	.284
.6	.189	.3	.806	7.0	.422	.7	.038	.4	.654		

Div.	Inches.
0.01	— .001
.02	.003
.03	.004
.04	.006
.05	.007
.06	.008
.07	.010
.08	.012
.09	.013

TABLE FOR REDUCING THE SCALE OF THE THERMOGRAPH INTO DEGREES OF FAHRENHEIT.

Div.	F°	Div.	F°	Div.	F°	Div.	F°	Div.	F°	Div.	F°
0.0	78.4	2.6	67.9	5.1	57.8	7.6	47.7	10.1	37.6	12.6	27.4
.1	78.0	.7	67.5	.2	57.4	.7	47.3	.2	37.2	.7	27.0
.2	77.6	.8	67.1	.3	57.0	.8	46.9	.3	36.8	.8	26.6
.3	77.2	.9	66.7	.4	56.6	.9	46.5	.4	36.4	.9	26.2
.4	76.8	3.0	66.3	.5	56.2	8.0	46.1	.5	36.0	13.0	25.8
.5	76.4	.1	65.9	.6	55.8	.1	45.7	.6	35.6	.1	25.4
.6	76.0	.2	65.5	.7	55.4	.2	45.3	.7	35.2	.2	25.0
.7	75.6	.3	65.1	.8	55.0	.3	44.9	.8	34.8	.3	24.6
.8	75.2	.4	64.7	.9	54.6	.4	44.5	.9	34.4	.4	24.2
.9	74.8	.5	64.3	6.0	54.2	.5	44.1	11.0	34.0	.5	23.8
1.0	74.4	.6	63.9	.1	53.8	.6	43.7	.1	33.5	.6	23.4
.1	74.0	.7	63.5	.2	53.4	.7	43.3	.2	33.1	.7	23.0
.2	73.6	.8	63.1	.3	53.0	.8	42.9	.3	32.7	.8	22.6
.3	73.2	.9	62.7	.4	52.6	.9	42.5	.4	32.3	.9	22.2
.4	72.8	4.0	62.3	.5	52.2	9.0	42.1	.5	31.9	14.0	21.8
.5	72.4	.1	61.9	.6	51.8	.1	41.7	.6	31.5	.1	21.3
.6	72.0	.2	61.5	.7	51.4	.2	41.3	.7	31.1	.2	20.9
.7	71.6	.3	61.1	.8	51.0	.3	40.9	.8	30.7	.3	20.5
.8	71.2	.4	60.7	.9	50.6	.4	40.5	.9	30.3	.4	20.1
.9	70.8	.5	60.3	7.0	50.2	.5	40.1	12.0	29.9	.5	19.7
2.0	70.3	.6	59.9	.1	49.7	.6	39.7	.1	29.5	.6	19.3
.1	69.9	.7	59.5	.2	49.3	.7	39.3	.2	29.0	.7	18.9
.2	69.5	.8	59.1	.3	48.9	.8	38.9	.3	28.6	.8	18.5
.3	69.1	.9	58.7	.4	48.5	.9	38.5	.4	28.2	.9	18.1
.4	68.7	5.0	58.2	.5	48.1	10.0	38.0	.5	27.8	15.0	17.7
.5	68.3										

CORRECTIONS TO BE APPLIED ON ACCOUNT OF THE DIFFERENCE BETWEEN THE IN- AND OUT-DOOR TEMPERATURE, FROM JAN. 1 TO SEPT. 30.

Room Warmer.	Correc- tion.	Room Warmer.	Correc- tion.	Room Warmer.	Correc- tion.
0	0	0	0	0	0
1	— 0.14	8	— 1.12	14	— 1.96
2	0.28	9	1.26	15	2.10
3	0.42	10	1.40	16	2.24
4	0.56	11	1.54	17	2.38
5	0.70	12	1.68	18	2.52
6	0.84	13	1.82	19	2.66
7	0.98				

TABLE FOR REDUCING THE DIVISIONS OF THE SCALE OF THE HYGROGRAPH
INTO DEGREES OF FAHRENHEIT.

Div.	F°	Div.	F°	Div.	F°	Div.	F°	Div.	F°	Div.	F°
0.0	82.7	2.6	70.4	5.2	58.0	7.8	45.8	10.4	33.5	13.0	21.2
.1	82.2	.7	70.0	.3	57.6	.9	45.3	.5	33.0	.1	20.7
.2	81.8	.8	69.5	.4	57.1	8.0	44.8	.6	32.5	.2	20.2
.3	81.3	.9	69.0	.5	56.6	.1	44.3	.7	32.1	.3	19.8
.4	80.9	3.0	68.5	.6	56.2	.2	43.8	.8	31.6	.4	19.3
.5	80.5	.1	68.0	.7	55.7	.3	43.4	.9	31.1	.5	18.8
.6	80.0	.2	67.5	.8	55.2	.4	42.9	11.0	30.6	.6	18.4
.7	79.6	.3	67.1	.9	54.8	.5	42.4	.1	30.1	.7	17.9
.8	79.0	.4	66.6	6.0	54.3	.6	42.0	.2	29.6	.8	17.4
.9	78.4	.5	66.1	.1	53.8	.7	41.5	.3	29.2	.9	17.0
1.0	77.9	.6	65.7	.2	53.4	.8	41.0	.4	28.7	14.0	16.5
.1	77.4	.7	65.2	.3	52.9	.9	40.5	.5	28.2	.1	16.0
.2	76.9	.8	64.7	.4	52.4	9.0	40.1	.6	27.8	.2	15.6
.3	76.5	.9	64.2	.5	52.0	.1	39.6	.7	27.3	.3	15.1
.4	76.0	4.0	63.8	.6	51.5	.2	39.1	.8	26.8	.4	14.7
.5	75.5	.1	63.4	.7	51.0	.3	38.7	.9	26.3	.5	14.2
.6	75.0	.2	62.9	.8	50.6	.4	38.2	12.0	25.9	.6	13.7
.7	74.6	.3	62.4	.9	50.1	.5	37.7	.1	25.4	.7	13.3
.8	74.1	.4	62.0	7.0	49.6	.6	37.3	.2	24.9	.8	12.8
.9	73.6	.5	61.5	.1	49.1	.7	36.8	.3	24.5	.9	12.3
2.0	73.2	.6	61.0	.2	48.6	.8	36.3	.4	24.0	15.0	11.8
.1	72.7	.7	60.5	.3	48.2	.9	35.8	.5	23.5		
.2	72.2	.8	60.0	.4	47.7	10.0	35.4	.6	23.0		
.3	71.8	.9	59.5	.5	47.2	.1	34.9	.7	22.6		
.4	71.3	5.0	59.0	.6	46.8	.2	34.4	.8	22.1		
.5	70.8	.1	58.5	.7	46.3	.3	34.0	.9	21.6		

METEOROGRAPHIC REGISTER

DURING THE YEAR 1856.



- * Affixed to the readings either of Barograph, or Thermograph, shews that the numbers are interpolated.
- n Shews that the top of the Mercurial Column in either Instrument was *above* the field of the lens. In such cases, the numbers are interpolated from the ordinary Barometer or Thermometer readings. In taking the monthly means, these numbers are to be considered *negative*.
- b Affixed to readings of the Thermograph shews, that the top of the Column of Mercury was *below* the field of the lens, and that the readings are derived from the ordinary Thermometers.

BAROGRAPH.

JANUARY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	4.35	4.35	4.50	4.80	4.85	4.95	5.20	5.40	5.60	5.50	5.60	5.70	5.07
2	5.95	6.15	6.35	6.50	6.60	6.75	7.10	7.45	7.50	7.60	7.60	7.65	6.93
3	7.70	7.70	7.65	7.55	7.40	7.20	7.20	7.25	7.20	7.10	7.00	7.00	7.33
4	6.80	6.70	6.75	6.80	6.65	6.60	6.70	6.90	6.80	7.00	6.90	7.00	6.80
5	7.00	7.20	7.35	7.50	7.50	7.50	7.80	8.00	8.00	8.20	8.30	8.35	7.73
6	8.40	8.50	8.70	8.90	9.00	9.10	9.30	9.65	9.80	10.10	10.30	10.50	9.35
7	10.50	10.55	10.60	10.80	10.70	10.70	10.95	11.20	11.30	11.30	11.20	11.20	10.92
8	11.30	11.20	11.10	11.00	10.80	10.60	10.60	10.55	10.50	10.40	10.15	10.00	10.68
9	10.00	10.00	9.90	9.90	9.85	9.80	9.85	9.90	9.90	9.70	9.60	9.50	9.83
10	9.30	9.20	9.10	9.00	8.65	8.40	8.20	7.90	7.50	7.10	6.80	6.50	8.14
11	6.30	6.00	5.80	5.60	5.20	5.00	4.90	4.70	4.50	4.20	3.80	3.50	4.96
12	3.10	2.70	2.40	2.10	1.60	1.20	1.10	1.00	0.70	0.40	0.30	0.20	1.40
13	0.00	0.10 n	0.20 n	0.40 n	0.55 n	0.70 n	0.55 n	0.40 n	0.30 n	0.20 n	0.00	0.10	0.29 n
14	0.20	0.50	0.90	1.40	1.55	2.15	2.50	3.10	3.40	3.40	3.70	3.90	2.23
15	4.00	4.40	4.70	4.80	4.70	4.65	4.60	4.75	4.75	4.65	4.50	4.45	4.58
16	4.45	4.40	4.50	4.50	4.40	4.40	4.55	4.80	4.95	5.00	5.20	5.65	4.82
17	6.00	6.40	6.95	7.25	7.20	7.15	7.20	7.60	7.95	8.20	8.30	8.50	7.39
18	8.55	8.55	8.50	8.30	8.00	7.90	8.00	8.00	7.90	7.90	7.90	8.10	8.13
19	8.30	8.55	8.95	9.30	9.40	9.60	9.75 *	9.95	10.00	9.80	10.00	10.10	9.48
20	10.40	10.50	10.60	10.60	10.50	10.40	10.50	10.70	10.80	10.90	10.90	10.90	10.64
21	10.95	10.90	10.90	10.95	10.90	10.80	10.90	11.00	10.90	10.70	10.40	10.10	10.78
22	10.00	9.80	9.55	9.15	8.80	8.50	8.25	8.20	8.10	8.05	8.10	8.40	8.74
23	8.90	9.30	9.80	9.85	9.50	9.10	9.00	9.00	8.65	8.50	9.00	9.20	9.15
24	9.60	10.05	10.85	11.20	11.80	12.00	11.80	11.80	11.30	11.35	11.60	11.65	11.25
25	11.50	11.50	11.70	11.50	10.95	10.60	10.20	9.90	9.30	8.80	8.40	8.20	10.21
26	8.00	8.00	7.90	7.80	7.70	7.60	7.80	8.00	8.20	8.25	8.40	8.25	7.99
27	7.80	7.50	7.20	6.85	6.40	6.00	5.95	5.80	5.60	5.50	5.40	5.40	6.28
28	5.45	5.60	5.75	5.95	6.00	6.10	6.40	6.70	6.85	6.75	6.75	6.60	6.24
29	6.50	6.30	6.10	6.10	6.00	5.90	6.00	6.10	6.25	6.20	6.20	6.15	6.15
30	6.10	6.10	6.10	6.00	5.70	5.30	5.00	4.85	4.60	4.20	3.95	3.70	5.13
31	3.60	3.50	3.50	3.40	3.30	3.00	2.90	2.95	2.90	2.75	2.70	2.70	3.10
Mean	7.13	7.16	7.21	7.25	7.13	7.04	7.09	7.18	7.14	7.07	7.06	7.07	7.13
	29.404	.400	.392	.386	.404	.416	.409	.396	.402	.412	.414	.412	29.404

January 13. 2^h to 18^h the Barometer above the field of the picture; the numbers given are interpolated from eye observations made at 10^h, 14^h, and 22^h.

BAROGRAPH.

FEBRUARY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	2.60	2.70	2.80	2.90	3.00	2.90	2.95	3.20	3.40	3.50	3.60	3.60	3.10
2	3.70	3.90	4.00	4.10	4.10	4.00	4.10	4.30	4.35	4.30	4.20	4.10	4.10
3	4.05	4.00	4.05	4.05	3.90	3.80	3.90	4.10	4.10	4.05	3.95	3.90	3.99
4	4.00	4.00	4.20	4.25	4.20	4.20	4.30	4.40	4.65	4.40	4.30	4.20	4.26
5	4.10	4.00	3.80	3.60	3.40	3.10	3.10	3.10	3.20	3.50	3.40	3.80	3.51
6	4.15	4.25	4.65	4.80	5.00	5.25	5.60	6.05	6.75	7.05	7.30	7.15	5.67
7	6.80	6.75	6.60	6.55	6.40	6.60	6.70	6.60	6.05	5.60	5.15	4.70	6.21
8	4.45	4.40	4.35	4.50	4.40	4.30	4.20	4.30	4.30	4.10	4.10	3.90	4.28
9	4.00	4.20	4.30	4.40	4.50	4.45	4.70	4.95	5.15	5.05	5.00	4.90	4.63
10	4.70	4.60	4.60	4.55	4.40	4.40	4.50	4.70	4.75	4.70	4.70	4.80	4.62
11	4.80	4.90	5.00	5.10	5.10	5.20	5.40	5.60	5.56	5.50	5.30	5.20	5.22
12	5.30	5.50	5.90	6.20	6.40	6.50	6.50	6.60	6.65	6.70	6.55	6.30	6.26
13	6.00	5.85	5.80	5.70	5.80	5.90	6.30	6.70	7.00	7.10	7.00	6.70	6.32
14	6.65	6.50	6.45	6.50	6.35	6.10	6.10	6.30	6.30	6.30	6.20	6.20	6.33
15	6.15	6.15	6.25	6.20	6.05	6.00	6.00	6.15	6.20	6.00	5.95	5.90	6.08
16	5.80	5.80	5.80	5.80	5.65	5.50	5.50	5.60	5.55	5.40	5.30	5.20	5.58
17	5.10	5.05	5.10	5.10	5.00	5.10	5.15	5.30	5.35	5.30	5.30	5.30	5.18
18	5.30	5.40	5.50	5.65	5.60	5.60	5.70	5.85	5.90	5.95	6.00	5.95	5.62
19	6.00	5.95	5.90	5.80	5.60	5.40	5.30	5.30	5.15	5.10	4.90	4.80	5.43
20	4.80	4.80	4.90	4.85	4.70	4.60	4.70	4.85	4.80	4.70	4.55	4.40	4.72
21	4.30	4.30	4.40	4.30	4.10	3.90	3.80	3.80	3.60	3.50	3.35	3.25	3.88
22	3.20	3.25	3.40	3.45	3.50	3.60	3.95	4.10	4.20	4.25	4.20	4.10	3.77
23	4.05	4.00	3.90	3.80	3.70	3.50	3.40	3.40	3.20	3.00	2.70	2.35	3.42
24	2.10	1.90	1.80	1.60	1.25	1.00	1.10	1.25	1.30	1.20	1.00	0.90	1.37
25	0.90	0.80	0.85	0.75	0.60	0.50	0.60	0.70	0.90	0.90	1.00	1.10	0.80
26	1.30	1.50	1.70	1.75	1.70	1.60	1.60	1.60	1.65	1.50	1.35	1.35	1.55
27	1.30	1.20	1.30	1.20	1.00	0.90	0.90	1.00	0.90	0.80	0.65	0.60	0.98
28	0.55	0.50	0.60	0.55	0.40	0.40	0.45	0.60	0.65	0.60	0.55	0.65	0.54
29	0.65	0.70	0.80	0.70	0.50	0.40	0.35	0.40	0.40	0.20	0.10	0.00	0.43
Mean	4.03	4.03	4.09	4.09	4.01	3.94	4.03	4.17	4.21	4.15	4.06	3.98	4.06
	29.844	.844	.836	.835	.847	.856	.844	.824	.819	.827	.840	.850	29.840

BAROGRAPH.

MARCH, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	0.20 n	0.25 n	0.30 n	0.35 n	0.40 n	0.50 n	0.50 n	0.40 n	0.40 n	0.35 n	0.30 n	0.30 n	0.35 n
2	0.30 n	0.30 n	0.30 n	0.25 n	0.25 n	0.25 n	0.15 n	0.05 n	0.10 n	0.00	0.05 n	0.10 n	0.17 n
3	0.00	0.00	0.00	0.05	0.00	0.20 n	0.20 n	0.20 n	0.20 n	0.20 n	0.20 n	0.20 n	0.11 n
4	0.05 n	0.00	0.05	0.05	0.00	0.05	0.10	0.30	0.50	0.60	0.70	0.90	0.27
5	1.10	1.30	1.60	1.75	1.85	2.00	2.20	2.45	2.65	2.65	2.70	2.75	2.08
6	2.80	2.90	2.90	2.90	2.80	2.70	2.80	2.90	2.95	2.85	2.70	2.55	2.81
7	2.50	2.40	2.40	2.30	2.15	1.95	1.80	1.85	1.80	1.70	1.55	1.40	1.98
8	1.40	1.50	1.60	1.60	1.50	1.55	1.70	2.00	2.10	2.10	2.00	1.90	1.75
9	2.00	2.10	2.30	2.30	2.30	2.40	2.60	2.85	3.10	3.10	3.05	3.05	2.60
10	3.10	3.30	3.30	3.30	3.20	3.20	3.30	3.40	3.50	3.40	3.25	3.20	3.37
11	3.25	3.20	3.30	3.30	3.40	3.45	3.60	3.90	4.15	4.20	4.20	4.15	3.68
12	4.30	4.40	4.50	4.40	4.25	4.10	4.10	4.25	4.20	4.05	3.80	3.80	4.18
13	3.85	3.90	4.00	4.00	3.85	3.75	3.85	3.95	3.95	3.70	3.30	3.20	3.78
14	3.10	3.10	3.20	3.05	3.00	2.90	3.10	3.35	3.18	3.00	2.80	2.90	3.06
15	2.80	2.95	3.00	2.90	2.85	3.00	3.00	3.10	3.40	3.20	3.15	3.30	3.05
16	3.40	3.70	3.80	3.90	3.95	4.10	4.25	4.50	4.65	4.70	4.75	4.80	4.21
17	4.80	4.80	4.80	4.75	4.65	4.50	4.50	4.55	4.60	4.30	4.35	4.35	4.58
18	4.40	4.70	4.80	4.80	5.05	5.10	5.25	5.50	5.55	5.60	5.70	5.85	5.19
19	6.00	6.05	6.05	6.00	5.80	5.60	5.40	5.40	5.25	5.00	4.70	4.50	5.47
20	4.45	4.35	4.25	4.20	4.15	4.10	4.15	4.20	4.30	4.30	4.35	4.40	4.27
21	4.50	4.60	4.70	4.70	4.65	4.60	4.60	4.55	4.50	4.45	4.30	4.10	4.51
22	4.00	3.95	3.90	3.70	3.55	3.30	3.30	3.45	3.45	3.30	3.20	3.10	3.52
23	3.00	3.00	3.00	3.00	2.80	2.60	2.60	2.70	2.80	2.70	2.70	2.65	2.80
24	2.60	2.80	2.90	3.00	3.00	3.00	3.20	3.40	3.70	3.75	3.90	4.00	3.27
25	4.10	4.25	4.40	4.60	4.60	4.80	4.90	5.00	5.15	5.10	5.00	5.00	4.74
26	4.90	5.00	5.00	4.95	4.85	4.80	4.80	4.85	4.90	4.75	4.60	4.55	4.83
27	4.60	4.60	4.70	4.65	4.60	4.55	4.60	4.80	4.95	4.85	4.65	4.55	4.67
28	4.50	4.55	4.65	4.45	4.40	4.40	4.35	4.50	4.55	4.40	4.05	3.85	4.39
29	3.60	3.50	3.40	3.10	2.80	2.60	2.60	2.70	2.60	2.50	2.30	2.20	2.83
30	2.15	2.20	2.25	2.10	2.10	2.10	2.20	2.40	2.60	2.65	2.60	2.55	2.33
31	2.55	2.65	2.80	2.90	3.00	3.05	3.25	3.55	3.85	3.90	3.90	4.00	3.28
Mean	3.01	3.07	3.13	3.10	3.05	3.01	3.07	3.22	3.30	3.23	3.15	3.13	3.13
	29.989	.980	.971	.976	.983	.987	.980	.959	.947	.958	.969	.972	29.972

March 1—3. The Barometer above the field of the picture. The values marked, *n*, were interpolated from eye observations at 10^h, 14^h, and 22^h, on each day.

6. 12^h to 14^h gas extinguished in order to fix a new gas meter.

14. 16^h gas extinguished in order to attach a purifier to the meter.

BAROGRAPH.

APRIL, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	4.20	4.40	4.60	4.65	4.70	4.75	4.90	5.20	5.40	5.50	5.50	5.65	4.95
2	5.70	5.90	6.10	6.20	6.25	6.30	6.50	6.50	6.25	6.20	6.10	5.80	6.15
3	5.60	5.55	5.50	5.60	5.60	5.70	6.00	6.40	6.60	6.75	6.80	7.00	6.09
4	7.20	7.00	6.90	6.80	6.50	6.30	6.15	6.10	6.00	5.80	5.70	5.75	6.35
5	6.00	6.30	6.50	6.80	7.20	7.60	8.00	8.40	8.90	9.00	8.90	9.00	7.72
6	9.40	9.60	9.75	9.70	9.55	9.50	9.40	9.50	9.60	9.40	9.15	8.95	9.46
7	8.80	8.60	8.40	8.05	7.85	7.70	7.60	7.70	7.80	7.80	7.80	8.00	8.01
8	8.40	8.80	9.20	9.40	9.60	9.70	10.10	10.30	10.30	9.90	9.55	9.30	9.55
9	9.20	9.15	9.15	9.10	9.10	9.10	9.20	9.40	9.45	9.30	9.20	9.20	9.21
10	9.50	9.90	10.20	10.30	10.15	10.00	9.60	9.35	9.00	8.60	8.20	7.80	9.38
11	7.40	7.20	6.95	6.70	6.60	6.60	6.70	6.80	7.00	7.20	7.25	7.60	7.00
12	7.95	8.40	8.60	8.40	7.95	7.70	7.60	7.55	7.55	7.45	7.20	7.10	7.79
13	7.00	6.90	6.90	6.80	6.70	6.60	6.70	6.65	6.70	6.60	6.30	6.00	6.65
14	6.00	6.00	5.90	5.75	5.50	5.30	5.25	5.35	5.35	5.10	4.90	5.00	5.45
15	4.90	4.90	4.85	4.80	4.60	4.55	4.40	4.15	3.95	3.80	3.45	3.20	4.30
16	3.10	3.10	3.05	3.00	3.00	2.95	3.05	3.10	3.05	3.10	2.90	2.70	3.01
17	2.70	2.80	2.85	2.85	2.85	2.80	2.90	3.05	3.10	3.00	2.90	2.80	2.88
18	2.80	3.00	3.20	3.15	3.10	2.95	3.00	3.25	3.60	3.70	3.60	3.50	3.24
19	3.55	3.60	3.65	3.50	3.20	2.80	2.70	2.65	2.60	2.55	2.40	2.30	2.96
20	2.20	2.20	2.20	2.10	1.90	1.90	2.10	2.25	2.30	2.40	2.40	2.20	2.18
21	2.20	2.25	2.40	2.30	2.30	2.40	2.70	2.80	3.10	3.25	3.20	3.20	2.68
22	3.30	3.50	3.60	3.60	3.70	3.80	4.00	4.25	4.40	4.50	4.50	4.50	3.97
23	4.50	4.60	4.75	4.75	4.75	4.65	4.80	4.90	5.10	5.10	4.95	4.85	4.81
24	4.85	4.90	4.90	4.80	4.80	4.90	5.00	5.10	5.30	5.40	5.35	5.40	5.06
25	5.55	5.70	6.00	6.10	6.30	6.45	6.70	7.00	7.30	7.40	7.45	7.45	6.62
26	7.60	7.95	8.20	8.00	7.90	7.70	7.80	7.70	7.90	8.00	8.00	7.90	7.89
27	7.90	8.00	8.15	8.00	7.85	7.70	7.60	7.50	7.40	7.25	7.10	6.90	7.61
28	7.00	7.00	7.00	6.95	7.00	7.05	7.15	7.30	7.40	7.40	7.20	7.15	7.13
29	7.15	7.20	7.15	7.00	7.00	6.90	6.90	6.90	6.95	6.85	6.80	6.70	6.96
30	6.80	6.80	6.90	6.70	6.65	6.60	6.60	6.60	7.10	7.40	7.60	7.50	6.94
Mean	5.95	6.04	6.12	6.06	6.01	5.96	6.04	6.12	6.22	6.19	6.08	6.01	6.07
	29.571	.558	.537	.556	.563	.570	.558	.546	.532	.536	.552	.563	29.554

BAROGRAPH.

MAY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	7.40	7.15	6.90	6.70	6.55	6.60	6.60	6.60	6.20	5.75	5.30	5.00	6.40
2	4.75	4.50	4.40	4.15	4.00	4.00	4.00	4.00	4.05	4.00	3.90	3.80	4.13
3	3.75	3.70	3.75	3.65	3.55	3.45	3.50	3.45	3.45	3.30	3.10	2.90	3.46
4	2.80	2.90	2.90	2.90	3.00	3.10	3.10	3.30	3.35	3.45	3.50	3.40	3.14
5	3.45	3.45	3.50	3.40	3.40	3.30	3.40	3.45	3.55	3.65	3.70	3.80	3.50
6	3.95	4.10	4.30	4.50	4.70	4.95	5.30	5.55	5.95	6.35	6.60	6.90	5.26
7	7.40	7.75	8.00	7.90	7.85	7.75	7.70	7.40	7.20	6.90	6.50	6.20	7.38
8	6.00	5.75	5.50	5.20	4.90	4.50	4.30	4.00	3.70	3.35	3.00	2.80	4.42
9	2.70	2.70	2.60	2.65	2.65	2.60	2.70	2.70	2.85	2.90	2.90	2.95	2.74
10	3.10	3.30	3.40	3.50	3.60	3.80	4.00	4.30	4.40	4.50	4.50	4.45	3.90
11	4.50	4.60	4.70	4.70	4.70	4.90	5.00	5.15	5.40	5.45	5.45	5.40	5.00
12	5.50	5.70	5.80	5.85	5.90	6.00	6.10	6.20	6.30	6.35	6.35	6.30	6.03
13	6.40	6.50	6.60	6.65	6.60	6.60	6.70	6.75	6.80	6.90	6.90	6.90	6.69
14	7.10	7.30	7.60	7.70	7.75	7.65	7.55	7.55	7.40	7.40	7.35	7.30	7.47
15	7.40	7.55	7.65	7.70	7.70	7.80	7.90	7.95	8.05	8.20	8.30	8.20	7.95
16	8.25	8.20	8.15	7.90	7.90	7.70	7.60	7.50	7.25	7.10	6.90	6.70	7.60
17	6.60	6.60	6.60	6.60	6.80	6.90	7.20	7.00	7.00	6.90	6.90	6.70	6.82
18	6.70	6.80	7.00	7.50	7.80	8.20	8.50	8.40	8.45	8.00	7.70	7.50	7.71
19	7.40	7.20	7.00	6.50	6.20	5.70	5.40	5.10	4.80	4.55	4.35	4.10	5.69
20	4.00	3.95	3.90	3.75	3.65	3.70	3.70	3.80	3.90	4.00	3.95	3.95	3.85
21	4.05	4.15	4.30	4.40	4.50	4.70	5.00	5.30	5.60	5.90	6.00	6.00	4.99
22	6.20	6.35	6.60	6.60	6.70	6.80	6.90	7.00	7.10	7.25	7.10	6.90	6.79
23	6.85	7.00	7.20	7.30	7.30	7.50	7.65	7.85	8.00	8.00	7.90	7.85	7.53
24	7.90	8.00	7.95	7.95	7.90	7.90	7.80	7.85	7.70	7.65	7.45	7.30	7.78
25	7.30	7.40	7.45	7.40	7.40	7.00	6.80	6.60	6.30	5.90	5.70	5.45	6.65
26	5.30	5.25	5.20	5.15	5.00	5.05	5.15	5.40	5.30	5.40	5.40	5.30	5.24
27	5.40	5.50	5.55	5.50	5.55	5.70	5.95	6.00	6.30	6.40	6.60	6.80	5.94
28	6.90	7.10	7.30	7.20	7.10	7.00	7.00	6.90	6.85	6.60	6.40	6.20	6.88
29	6.00	5.75	5.60	5.30	5.00	4.70	4.40	4.20	4.00	3.80	3.50	3.20	4.62
30	3.10	3.20	3.05	3.00	3.00	3.00	3.00	3.15	3.20	3.30	3.35	3.40	3.15
31	3.70	4.00	4.20	4.35	4.50	4.85	5.10	5.30	5.60	5.80	5.80	6.00	4.77
Mean	5.54	5.59	5.63	5.60	5.59	5.59	5.65	5.67	5.68	5.65	5.56	5.47	5.60
	29.629	.622	.617	.621	.622	.622	.614	.611	.609	.614	.627	.639	29.621

BAROGRAPH.

JUNE, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	6.10	6.20	6.30	6.30	6.30	6.20	6.20	6.10	6.20	6.15	6.10	5.95	6.18
2	5.90	5.80	5.70	5.55	5.40	5.30	5.30	5.30	5.25	5.10	4.95	4.75	5.36
3	4.65	4.70	4.60	4.35	4.20	4.25	4.20	4.30	4.35	4.30	4.20	4.10	4.35
4	3.95	3.95	3.90	3.80	3.60	3.50	3.50	3.50	3.60	3.55	3.25	3.00	3.59
5	2.85	2.90	2.85	2.80	2.90	2.90	3.00	3.20	3.30	3.30	3.10	2.90	3.00
6	2.80	2.75	2.70	2.60	2.55	2.45	2.50	2.40	2.40	2.40	2.25	2.20	2.50
7	2.10	2.10	2.10	2.00	2.00	2.00	2.15	2.30	2.40	2.55	2.50	2.50	2.23
8	2.60	2.70	2.70	2.70	2.65	2.60	2.65	2.65	2.70	2.80	2.80	2.80	2.70
9	2.90	3.10	3.20	3.20	3.25	3.35	3.40	3.50	3.55	3.60	3.60	3.50	3.43
10	3.50	3.50	3.50	3.40	3.30	3.40	3.40	3.50	3.60	3.65	3.60	3.40	3.48
11	3.30	3.20	3.30	3.40	3.40	3.60	3.80	4.00	4.20	4.20	4.10	4.20	3.73
12	4.20	4.50	4.70	4.80	5.00	5.10	5.20	5.40	5.45	5.40	5.40	5.40	5.05
13	5.40	5.50	5.60	5.70	5.90	6.20	6.40	6.55	6.90	7.20	7.50	7.70	6.38
14	7.95	7.90	7.70	7.50	7.25	7.00	7.00	6.85	6.80	6.60	6.30	5.90	7.06
15	5.70	5.60	5.40	4.95	4.75	4.40	4.10	4.10	4.00	3.85	3.60	3.35	4.48
16	3.25	3.20	3.15	3.10	3.00	3.20	3.30	3.55	3.70	3.80	3.90	4.00	3.43
17	4.30	4.60	4.80	4.90	5.00	5.10	5.20	5.20	5.20	5.15	5.00	4.80	4.94
18	4.80	4.80	4.85	4.75	4.70	4.80	5.00	5.20	5.30	5.45	5.55	5.60	5.07
19	5.90	6.25	6.60	6.90	7.10	7.30	7.50	7.70	7.80	7.90	7.80	7.70	7.20
20	7.70	7.70	7.75	7.60	7.40	7.25	6.90	6.60	6.10	5.60	5.15	4.70	6.70
21	4.50	4.20	4.00	3.85	3.75	3.70	3.70	3.80	3.95	4.20	4.35	4.40	4.03
22	4.50	4.60	4.75	4.65	4.60	4.50	4.50	4.50	4.55	4.60	4.50	4.20	4.54
23	4.00	3.90	3.75	3.55	3.25	3.10	2.90	2.80	2.80	2.70	2.55	2.50	3.15
24	2.45	2.55	2.65	2.70	2.70	2.80	2.90	3.00	3.00	3.00	2.95	2.90	2.80
25	2.90	2.90	2.90	2.80	2.70	2.70	2.75	2.75	2.80	2.80	2.70	2.50	2.76
26	2.40	2.40	2.45	2.40	2.40	2.40	2.50	2.55	2.70	2.75	2.75	2.80	2.54
27	2.90	2.95	3.00	3.00	3.10	3.20	3.35	3.50	3.65	3.80	3.70	2.70	3.32
28	3.60	3.70	3.65	3.70	3.65	3.65	3.65	3.60	3.60	3.45	3.10	2.80	3.51
29	2.60	2.50	2.45	2.30	2.20	2.15	2.20	2.30	2.50	2.65	2.75	2.70	2.44
30	2.90	3.25	3.40	3.50	3.70	3.85	3.95	3.90	3.90	3.80	3.50	3.30	3.58
Mean	4.09	4.13	4.15	4.09	4.06	4.07	4.09	4.15	4.21	4.21	4.12	4.07	4.12
	29.835	.830	.827	.835	.840	.838	.835	.827	.819	.819	.831	.838	29.831

June 5. 4^h gas extinguished, the supply being exhausted by the Illumination in the town, for the peace with Russia.

BAROGRAPH.

JULY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	3.10	3.00	2.95	2.75	2.70	2.60	2.70	2.80	2.90	3.00	2.95	2.90	2.86
2	2.90	2.90	2.85	2.75	2.70	2.70	2.80	2.90	3.00	3.00	2.90	2.70	2.84
3	2.60	2.60	2.60	2.50	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.05	2.75
4	3.20	3.40	3.30	3.25	3.30	3.40	3.60	3.75	3.90	3.90	3.80	3.75	3.55
5	3.80	3.90	4.00	3.95	3.90	3.80	3.90	4.05	4.20	4.20	4.00	3.90	3.94
6	3.90	4.05	4.00	3.90	3.90	4.00	4.10	4.25	4.40	4.40	4.45	4.50	4.15
7	4.70	5.05	5.30	5.60	6.00	6.40	7.00	7.40	7.95	8.30	8.60	8.90	6.77
8	8.70	8.90	9.20	9.20	8.70	8.00	7.40	7.20	6.85	6.10	6.40	6.25	7.74
9	6.20	6.15	6.10	6.00	5.80	5.70	5.65	5.60	5.50	5.40	5.20	5.00	5.69
10	5.00	5.00	4.90	4.80	4.60	4.70	4.70	4.70	4.70	4.70	4.60	4.60	4.75
11	4.70	4.65	4.80	4.80	4.80	4.85	4.90	4.90	4.80	4.80	4.75	4.80	4.78
12	4.90	5.00	5.10	5.10	5.10	5.20	5.50	5.60	5.70	5.70	5.60	5.40	5.33
13	5.30	5.10	5.05	4.90	4.75	4.70	4.80	5.00	5.00	5.20	5.15	5.15	5.01
14	5.05	5.10	5.00	4.80	4.60	4.50	4.40	4.40	4.30	4.30	4.20	4.10	4.56
15	4.10	4.15	4.35	4.35	4.40	4.50	4.70	4.80	5.20	5.20	5.20	5.40	4.70
16	5.60	5.70	5.90	6.00	5.80	5.60	5.25	5.00	4.70	4.50	4.30	4.00	5.21
17	3.80	3.75	3.70	3.50	3.35	3.40	3.40	3.40	3.40	3.50	3.40	3.45	3.50
18	3.55	3.70	3.90	3.95	4.10	4.15	4.25	4.35	4.35	4.30	4.10	4.00	4.06
19	3.95	3.90	4.10	4.10	4.00	4.10	4.10	4.20	4.20	4.20	4.10	4.10	4.09
20	4.20	4.30	4.40	4.40	4.35	4.35	4.50	4.50	4.35	4.30	4.15	4.00	4.32
21	4.00	4.10	4.05	4.00	4.00	4.10	4.20	4.30	4.40	4.55	4.50	4.50	4.23
22	4.55	4.60	4.70	4.70	4.70	4.80	4.95	5.10	5.30	5.40	5.50	5.50	4.98
23	5.60	5.65	5.90	6.00	6.10	6.30	6.55	6.75	6.90	7.10	7.10	7.10	6.42
24	7.00	7.20	7.10	7.10	7.00	6.95	6.95	6.90	6.90	6.70	6.60	6.30	6.89
25	6.10	6.00	5.80	5.60	5.50	5.40	5.30	5.30	5.10	4.95	4.70	4.55	5.36
26	4.40	4.30	4.30	4.20	4.10	4.10	4.05	4.05	4.00	4.00	3.80	3.60	4.08
27	3.45	3.45	3.50	3.50	3.40	3.45	3.50	3.50	3.70	3.80	3.80	3.90	3.58
28	4.00	4.20	4.40	4.40	4.30	4.20	4.20	4.10	4.05	3.95	3.80	3.50	4.09
29	3.40	3.35	3.40	3.20	2.95	2.90	3.00	3.05	3.10	3.00	2.85	2.70	3.08
30	2.65	2.60	2.60	2.45	2.30	2.30	2.40	2.50	2.45	2.50	2.40	2.30	2.45
31	2.30	2.30	2.40	2.35	2.35	2.40	2.60	2.75	2.90	2.95	2.90	2.80	2.58
Mean	4.41	4.45	4.50	4.45	4.39	4.39	4.45	4.51	4.55	4.55	4.48	4.41	4.46
	29.791	.785	.777	.785	.793	.793	.785	.776	.770	.770	.780	.791	29.784

BAROGRAPH.

AUGUST, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	2.75	2.85	2.90	2.90	2.95	3.00	3.20	3.40	3.60	3.60	3.45	3.40	3.18
2	3.40	3.50	3.70	3.70	3.70	3.70	3.80	3.90	4.00	4.10	4.00	3.80	3.78
3	3.80	3.85	3.95	3.90	3.80	3.80	3.80	3.90	3.90	3.95	3.80	3.50	3.83
4	3.30	3.30	3.40	3.30	3.10	2.95	2.95	3.00	3.10	3.20	3.00	2.80	3.12
5	2.70	2.60	2.55	2.50	2.40	2.45	2.50	2.60	2.80	2.90	2.80	2.60	2.62
6	2.60	2.70	2.70	2.70	2.80	2.90	3.10	3.30	3.50	3.70	3.70	3.70	3.12
7	3.70	3.90	4.00	4.00	4.10	4.20	4.45	4.70	4.80	5.10	5.10	5.20	4.44
8	5.30	5.50	5.80	6.00	6.20	6.30	6.50	6.60	6.85	6.90	6.75	6.60	6.28
9	6.50	6.40	6.30	6.20	6.00	5.90	6.10	6.20	6.20	6.10	5.80	5.70	6.12
10	5.60	5.65	5.60	5.50	5.40	5.40	5.40	5.50	5.60	5.70	5.70	5.70	5.56
11	5.65	5.80	5.70	5.60	5.50	5.50	5.60	5.80	5.80	5.70	5.60	5.40	5.64
12	5.20	5.10	5.20	5.10	4.90	4.80	4.90	4.90	4.90	4.90	4.60	4.50	4.92
13	4.50	4.50	4.45	4.40	4.40	4.50	4.80	4.90	5.00	5.00	5.00	5.00	4.70
14	5.10	5.20	5.30	5.30	5.20	5.20	5.30	5.40	5.40	5.25	5.10	5.00	5.23
15	5.00	5.00	5.10	4.90	4.80	4.80	4.80	4.75	4.65	4.40	4.30	4.30	4.73
16	4.20	4.30	4.50	4.40	4.50	4.60	4.90	5.00	5.60	5.60	5.55	5.70	4.90
17	6.00	6.40	6.50	6.80	7.00	7.30	7.50	7.65	7.80	7.90	7.90	7.80	7.21
18	7.80	8.00	8.00	8.00	8.00	7.90	7.90	7.90	8.00	8.00	7.90	7.80	7.93
19	7.80	7.85	7.80	7.70	7.60	7.40	7.30	7.10	7.00	6.90	6.70	6.70	7.32
20	6.60	6.80	7.00	7.20	7.30	7.50	7.70	7.85	8.10	8.50	8.80	9.10	7.70
21	9.60	10.10	10.50	10.30	10.00	9.70	9.50	9.30	9.20	8.90	8.70	8.40	9.52
22	8.10	7.90	7.60	7.30	6.80	6.40	5.90	5.60	5.30	4.90	4.50	4.20	6.21
23	3.90	3.70	3.60	3.50	3.30	3.20	3.20	3.20	3.20	3.30	3.20	3.20	3.38
24	3.20	3.45	3.45	3.50	3.60	3.60	3.70	3.80	3.90	3.90	3.80	3.80	3.64
25	3.90	4.00	4.10	4.20	4.40	4.60	4.70	4.90	5.20	5.40	5.50	5.50	4.70
26	5.40	5.40	5.20	5.00	4.70	4.50	4.50	4.50	4.40	4.45	4.50	4.60	4.76
27	5.00	5.30	5.60	5.70	5.70	5.70	5.75	5.75	5.60	5.50	5.30	5.25	5.51
28	5.30	5.20	5.20	5.30	5.40	5.60	5.90	6.25	6.40	6.40	6.30	6.10	5.78
29	6.00	5.65	5.50	5.10	4.90	4.60	4.40	4.20	4.10	3.80	3.40	3.10	4.56
30	3.10	3.10	3.00	3.00	3.00	3.10	3.40	3.70	3.90	4.10	4.20	4.40	3.50
31	4.50	4.70	4.90	4.80	4.70	4.70	4.80	4.90	5.00	5.00	5.00	4.90	4.83
Mean	5.02	5.09	5.13	5.09	5.04	5.03	5.10	5.18	5.25	5.26	5.16	5.09	5.12
	29.704	.694	.688	.694	.701	.703	.692	.680	.670	.669	.684	.685	29.691

BAROGRAPH.

SEPTEMBER, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	4.90	4.90	5.00	5.10	5.15	5.30	5.50	5.70	6.00	6.10	6.00	5.90	5.46
2	5.70	5.60	5.40	5.00	4.50	4.20	4.00	3.80	3.50	3.30	3.00	2.70	4.23
3	2.55	2.50	2.45	2.30	2.20	2.20	2.30	2.40	2.60	2.60	2.50	2.50	2.43
4	2.60	2.70	2.75	2.80	2.80	2.90	3.20	3.40	3.60	3.80	3.80	3.80	3.18
5	3.90	4.00	4.30	4.25	4.20	4.40	4.60	4.80	5.00	5.00	4.90	5.00	4.53
6	5.20	5.30	5.50	5.60	5.80	6.00	6.10	6.20	6.40	6.30	6.30	6.25	5.91
7	6.20	6.00	6.10	6.10	5.90	5.80	5.60	5.60	5.60	5.40	5.20	5.00	5.71
8	4.90	4.90	4.90	4.80	4.70	4.70	4.80	4.90	5.00	5.00	4.80	4.80	4.85
9	4.90	4.90	5.00	4.95	4.90	5.00	5.10	5.20	5.20	5.20	5.10	5.10	5.05
10	5.10	5.15	5.10	5.00	4.90	4.70	4.70	4.60	4.60	4.40	4.10	3.90	4.69
11	3.80	3.70	3.60	3.50	3.40	3.20	3.20	3.20	3.10	3.00	2.80	2.80	3.28
12	2.80	2.80	2.90	2.90	2.90	2.80	3.00	3.05	3.15	3.10	3.10	3.10	2.97
13	3.20	3.30	3.50	3.50	3.60	3.60	3.80	3.90	3.90	3.90	3.60	3.40	3.60
14	3.30	3.20	3.20	3.00	2.90	2.80	2.80	2.80	2.80	2.70	2.50	2.50	2.88
15	2.50	2.55	2.80	2.70	2.70	2.90	3.00	3.30	3.20	3.00	3.00	3.10	2.90
16	3.20	3.30	3.20	3.10	3.00	3.00	3.00	3.10	3.20	3.20	3.20	3.30	3.15
17	3.50	3.80	4.30	4.40	4.60	4.60	4.90	5.05	5.30	5.50	5.50	5.60	4.75
18	5.65	5.50	5.40	5.20	5.10	5.10	5.10	5.10	5.20	5.20	5.00	5.00	5.21
19	5.10	5.10	5.10	5.00	4.90	4.70	4.65	4.70	4.70	4.60	4.20	4.00	4.73
20	4.00	3.90	3.85	3.80	3.70	3.60	3.60	3.40	3.30	3.20	3.10	3.00	3.54
21	3.10	3.20	3.40	3.60	3.70	4.00	4.50	5.00	5.60	6.00	6.60	6.80	4.63
22	6.95	7.10	7.30	7.60	7.70	8.00	8.40	9.00	9.85	9.80	9.65	9.60	8.41
23	9.75	9.90	10.10	10.20	10.20	10.20	10.10	10.10	10.05	10.00	9.90	9.90	10.03
24	10.00	9.90	9.90	9.90	9.80	9.90	10.05	10.40	10.60	10.70	10.70	10.60	10.20
25	10.45	10.30	10.15	9.90	9.60	9.20	9.00	8.90	8.55	8.20	7.80	7.55	9.13
26	7.50	7.30	7.20	7.15	7.00	7.00	7.10	7.50	7.80	8.10	8.40	8.80	7.57
27	9.10	9.60	10.15	10.40	10.80	11.20	11.00	11.00	11.20	11.25	11.30	11.45	10.70
28	11.90	12.50	12.70	12.70	12.60	12.50	12.20	12.00	11.80	11.55	11.40	11.30	12.10
29	11.10	10.90	10.70	10.50	10.20	9.90	9.60	9.50	9.20	8.80	8.40	8.20	9.75
30	8.00	7.85	7.60	7.40	7.00	6.80	6.60	6.40	6.35	6.10	5.80	5.60	6.79
Mean	5.69	5.72	5.78	5.75	5.68	5.67	5.72	5.80	5.88	5.83	5.72	5.68	5.75
	29.608	.604	5.95	.600	.609	.611	.604	.592	.580	.588	.604	.609	29.600

BAROGRAPH.

OCTOBER, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	5.50	5.50	5.40	5.40	5.30	5.30	5.40	5.70	5.80	5.80	5.75	5.80	5.55
2	5.95	6.10	6.15	6.20	6.10	6.00	5.85	5.90	5.95	5.80	5.70	5.55	5.94
3	5.50	5.60	5.80	5.80	5.80	5.80	5.85	5.90	6.00	6.00	6.10	6.30	5.87
4	6.50	6.90	7.10	7.20	7.10	6.95	6.90	6.50	6.20	6.00	5.80	5.80	6.58
5	5.90	5.80	5.80	5.70	5.50	5.40	5.30	5.35	5.40	5.15	5.00	4.90	5.43
6	4.80	4.70	4.65	4.50	4.45	4.20	4.30	4.40	4.40	4.45	4.45	4.70	4.50
7	4.80	4.90	4.85	4.70	4.60	4.50	4.60	4.60	4.65	4.45	4.50	4.40	4.63
8	4.50	4.60	4.70	4.60	4.50	4.40	4.30	4.25	4.10	3.90	3.70	3.50	4.25
9	3.40	3.40	3.40	3.10	3.00	2.90	2.80	2.80	2.80	2.70	2.50	2.40	2.94
10	2.50	2.50	2.60	2.55	2.50	2.50	2.50	2.60	2.80	2.80	2.80	2.90	2.63
11	3.10	3.30	3.40	3.50	3.65	3.70	3.90	4.05	4.10	4.10	4.10	4.00	3.74
12	3.95	4.00	4.00	3.90	3.60	3.50	3.45	3.40	3.40	3.25	3.05	3.00	3.54
13	2.90	2.90	2.80	2.80	2.65	2.70	2.80	2.95	3.05	3.10	3.20	3.30	2.93
14	3.50	3.75	3.90	4.20	4.40	4.60	4.95	5.30	5.70	5.90	6.25	6.70	4.93
15	7.20	7.40	7.65	7.90	8.10	8.25	8.80	9.20	8.50	7.70	7.00	6.30	7.83
16	5.80	5.40	4.90	4.45	4.00	3.80	3.50	3.20	2.90	2.60	2.40	2.20	3.76
17	2.10	2.10	2.00	1.90	1.80	1.80	1.80	1.90	2.00	1.90	1.90	1.80	1.92
18	1.80	1.90	1.90	1.90	1.80	1.80	1.90	2.00	2.00	1.90	1.90	1.90	1.89
19	1.90	2.00	2.00	2.00	1.90	1.90	2.00	2.20	2.30	2.30	2.30	2.20	2.08
20	2.30	2.40	2.55	2.60	2.60	2.70	2.80	3.00	3.00	3.00	2.95	2.95	2.74
21	3.00	3.00	3.00	2.90	2.75	2.60	2.55	2.60	2.50	2.30	2.20	2.05	2.62
22	2.00	2.00	2.00	2.00	1.95	1.90	1.90	2.10	2.20	2.05	2.00	1.90	2.00
23	1.95	2.00	1.90	1.80	1.70	1.60	1.65	1.70	1.75	1.60	1.50	1.40	1.71
24	1.30	1.30	1.20	1.10	0.90	0.80	0.80	0.75	0.80	0.70	0.55	0.50	0.89
25	0.55	0.60	0.70	0.70	0.60	0.60	0.70	0.80	0.90	0.80	0.80	0.70	0.72
26	0.80	0.95	1.00	1.05	1.00	1.00	1.10	1.35	1.40	1.30	1.30	1.30	1.13
27	1.30	1.40	1.45	1.45	1.40	1.40	1.50	1.75	1.80	1.80	1.70	1.70	1.55
28	1.70	1.80	1.80	1.85	1.75	1.70	1.80	1.90	2.00	2.00	2.05	2.10	1.87
29	2.15	2.20	2.35	2.45	2.35	2.35	2.50	2.80	2.85	2.80	2.80	2.85	2.54
30	2.85	2.90	3.05	3.20	3.10	2.95	3.10	3.15	3.30	3.25	3.35	3.50	3.14
31	3.60	3.80	4.00	4.00	3.75	3.40	3.30	3.10	2.80	2.50	2.20	2.00	3.20
Mean	3.39	3.45	3.49	3.46	3.37	3.32	3.37	3.46	3.46	3.35	3.28	3.25	3.39
	29.934	.926	.920	.925	.937	.944	.937	.925	.925	.940	9.50	.955	29.936

BAROGRAPH.

NOVEMBER, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	1.95	1.90	1.80	1.75	1.60	1.50	1.55	1.60	1.55	1.40	1.40	1.40	1.62
2	1.40	1.50	1.60	1.70	1.70	1.75	1.90	2.20	2.40	2.30	2.40	2.40	1.94
3	2.45	2.60	2.65	2.65	2.60	2.60	2.70	2.85	2.85	2.80	2.80	2.80	2.70
4	2.80	2.80	2.80	2.70	2.60	2.50	2.45	2.40	2.30	2.10	1.90	1.70	2.42
5	1.70	1.65	1.60	1.55	1.30	1.20	1.25	1.30	1.30	1.10	1.00	1.00	1.31
6	0.95	0.90	0.90	0.80	0.60	0.55	0.60	0.65	0.55	0.30	0.10	0.00	0.58
7	0.05 "	0.10 "	0.15 "	0.20 "	0.25 "	0.30 "	0.20 "	0.00	0.05 "	0.02 "	0.00	0.05	0.11 "
8	0.20	0.40	0.70	0.90	1.20	1.45	1.90	2.50	2.80	3.00	3.00	3.10	1.76
9	3.05	3.00	3.10	3.25	3.20	3.30	3.50	3.80	4.10	4.40	4.70	5.20	3.72
10	5.60	6.00	6.50	6.80	7.00	7.20	7.50	7.80	7.90	7.90	8.00	8.05	7.19
11	8.15	8.20	8.20	8.30	8.15	8.10	8.10	8.20	8.10	8.00	7.80	7.40	8.06
12	7.10	6.80	6.40	6.10	5.85	5.65	5.60	5.60	5.50	5.45	5.40	5.40	5.90
13	5.30	5.25	5.20	5.05	4.85	4.70	4.80	4.90	4.90	5.10	5.20	5.30	5.05
14	5.40	5.50	5.50	5.20	4.80	4.55	4.55	4.50	4.20	4.00	3.85	3.75	4.65
15	3.65	3.60	3.70	3.65	3.60	3.50	3.70	4.00	4.20	4.30	4.40	4.25	3.88
16	4.00	3.80	3.60	3.25	2.90	2.60	2.55	2.50	2.45	2.30	2.30	2.30	2.88
17	2.35	2.55	2.80	3.00	2.90	2.90	3.10	3.30	3.30	3.25	3.25	3.25	3.00
18	3.35	3.60	3.65	3.70	3.60	3.35	3.30	3.30	3.10	2.80	2.70	2.70	3.26
19	2.75	2.85	3.10	3.40	3.50	3.40	3.60	3.60	3.50	3.40	3.40	3.40	3.33
20	3.55	3.70	3.70	3.80	3.80	3.60	3.60	3.60	3.60	3.50	3.40	3.20	3.59
21	3.10	3.00	2.90	2.80	2.55	2.40	2.35	2.40	2.30	2.30	2.20	2.10	2.53
22	2.20	2.30	2.30	2.40	2.40	2.50	2.50	2.60	2.70	2.60	2.60	2.70	2.48
23	2.80	2.80	3.00	3.10	3.10	3.10	3.30	3.45	3.60	3.80	3.80	3.90	3.31
24	4.30	4.50	4.80	5.30	5.30	5.30	5.30	5.30	5.10	5.00	4.95	4.80	5.00
25	4.80	4.80	4.70	4.60	4.20	3.90	3.70	3.65	3.60	3.55	3.60	3.80	4.08
26	4.10	4.60	5.40	6.10	6.90	7.15	7.20	7.05	6.70	6.50	6.60	6.50	6.23
27	6.60	6.55	6.70	6.70	6.70	6.65	6.65	6.60	6.50	6.20	6.00	5.90	6.48
28	5.90	5.90	6.00	6.00	5.90	5.85	6.10	6.30	6.25	6.30	6.30	6.20	6.08
29	6.10	6.00	6.10	6.10	6.00	5.90	6.00	6.10	6.10	6.00	6.00	5.90	6.02
30	5.90	5.80	5.70	5.60	5.50	5.30	5.30	5.20	5.00	4.65	4.40	4.20	5.21
Mean	3.71	3.76	3.83	3.87	3.80	3.74	3.81	3.91	3.88	3.81	3.78	3.75	3.81
	29.890	.883	.873	.868	.877	.885	.876	.861	.865	.876	.879	.884	29.876

BAROGRAPH.

DECEMBER, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	4.10	4.15	4.20	4.30	4.35	4.35	4.50	4.60	4.60	4.60	4.50	4.50	4.40
2	4.40	4.40	4.40	4.40	4.30	4.20	4.30	4.45	4.50	4.60	4.80	4.85	4.47
3	5.00	5.30	5.60	5.75	5.65	5.70	5.80	5.75	5.40	5.05	4.55	4.20	5.31
4	4.00	3.80	3.85	3.70	3.60	3.45	3.85	4.00	4.20	4.50	4.70	4.90	4.05
5	5.30	5.80	6.30	6.70	6.90	6.90	7.20	7.45	7.85	8.20	8.80	9.00	7.20
6	9.30	9.00	8.30	8.00	7.80	7.80	8.10	8.30	8.40	8.40	8.30	8.10	8.32
7	8.20	8.25	8.15	8.10	7.90	7.60	7.50	7.60	7.60	7.65	7.70	7.70	7.83
8	7.90	8.10	8.30	8.10	7.70	7.50	7.50	7.80	7.90	8.10	8.50	8.70	8.01
9	8.60	8.30	7.80	7.65	8.00	8.45	8.90	9.30	9.40	9.30	9.20	9.10	8.67
10	8.95	9.10	9.35	9.50	9.50	9.30	9.40	9.50	9.40	9.10	8.70	8.40	9.18
11	8.40	8.30	8.20	8.00	7.80	7.60	7.70	7.90	8.20	8.50	9.20	10.20	8.33
12	10.10	9.85	9.60	9.40	9.10	9.00	9.55	10.40	11.50	11.70	11.50	11.30	10.25
13	11.35	11.30	11.50	11.85	12.00	12.10	12.10	12.00	11.60	10.90	10.40	10.00	11.42
14	9.60	9.20	8.80	8.40	7.90	7.30	6.80	6.50	5.90	5.30	4.70	4.20	7.05
15	3.70	3.30	2.90	2.50	2.15	1.70	1.60	1.50	1.20	1.00	0.70	0.50	1.90
16	0.45	0.40	0.40	0.30	0.20	0.00	0.10	0.20	0.15	0.20	0.20	0.25	0.23
17	0.35	0.40	0.70	0.90	1.00	1.00	1.30	1.60	1.90	2.20	2.45	2.80	1.38
18	3.20	3.70	4.20	4.70	5.00	5.00	5.00	5.00	4.50	3.90	3.40	3.00	4.22
19	2.50	2.20	1.80	1.65	1.30	1.10	1.15	1.20	1.20	1.10	1.10	1.10	1.45
20	1.10	1.20	1.20	1.15	1.05	0.90	0.90	1.00	1.00	1.00	0.90	0.85	1.02
21	0.85	0.90	0.95	1.00	0.90	0.80	0.95	1.25	1.40	1.50	1.70	1.80	1.18
22	2.10	2.40	2.80	3.20	3.40	3.40	3.80	4.10	4.20	4.40	4.40	4.60	3.57
23	4.60	4.40	4.25	4.00	3.70	3.50	3.60	3.80	4.10	4.20	4.60	5.10	4.15
24	5.70	6.20	6.90	7.60	8.20	8.50	9.20	9.80	10.30	10.70	10.95	11.30	8.78
25	11.40	11.70	11.90	12.00	11.90	11.80	11.85	11.90	11.95	11.90	11.80	11.80	11.83
26	11.90	11.90	12.10	12.30	12.10	12.00	11.95	11.85	11.50	11.10	10.85	10.60	11.68
27	10.30	10.10	9.90	9.70	9.35	9.10	9.00	8.90	8.70	8.50	8.40	8.20	9.18
28	8.20	8.00	7.85	7.70	7.40	7.20	7.00	6.80	6.50	6.20	5.90	5.50	7.02
29	5.20	4.80	4.50	4.30	3.80	3.66	3.50	3.60	3.50	3.40	3.15	3.10	4.12
30	3.05	3.00	3.00	3.00	2.95	2.80	2.80	2.75	2.70	2.50	2.50	2.50	2.80
31	2.50	2.45	2.50	2.60	2.55	2.60	2.70	2.85	3.00	3.15	3.30	3.45	2.80
Mean	5.88	5.87	5.88	5.89	5.79	5.69	5.79	5.92	5.94	5.90	5.87	5.86	5.86
	29.580	.592	.580	.579	.594	608	.594	.575	.572	.578	.582	.584	29.587

THERMOGRAPH.

JANUARY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	10.00	9.70	9.20	9.15	9.20	9.00	8.80	8.60	8.60	8.60	8.50	8.50	8.99	52.8
2	8.60	8.60	8.50	8.40	8.60	8.30	8.45	7.30	7.50	7.80	8.30	8.40	8.15	54.0
3	8.45	8.70	8.50	8.40	8.20	8.00	7.50	7.35	7.50	7.75	8.00	8.00	8.03	54.3
4	7.90	7.90	8.00	8.00	8.10	8.10	8.00	8.10	8.40	8.50	8.50	8.60	8.18	53.7
5	8.55 *	8.50	8.40	8.20	8.25	8.15	8.00	7.70	7.80	7.80	7.60	7.50	8.04	53.8
6	7.50	7.50	7.80	8.00	8.20	7.85	7.90	8.00	8.10	8.10	8.10	7.85	7.91	55.7
7	7.90	8.20	8.15	8.60	8.50	8.20	8.10	7.70	8.20	8.50	8.65	8.80	8.29	55.5
8	9.00	9.20	9.60	9.70	9.75	9.50	9.00	8.70	9.00	9.30	9.60	9.70	9.34	54.0
9	9.85	9.90	10.10	10.20	10.25	10.80	10.95	10.50	10.10	10.30	10.45	10.60	10.33	52.0
10	10.40	10.40	10.70	10.80	10.90	10.80	10.65	10.10	10.80	11.20	11.40	11.60	10.81	49.3
11	12.00	12.00	12.10	12.30	12.60	12.15	11.20	10.80	11.20	11.30	11.80	11.30	11.73	46.7
12	11.60	11.40	11.30	11.60	12.15	11.60	11.10	10.80	11.30	11.70	11.80	12.00	11.53	46.5
13	12.10	12.10	12.45	12.90	12.70	12.30	11.30	10.60	10.80	11.50	12.10	12.30	11.93	47.8
14	12.60	13.00	13.20	13.55	13.20	12.90	11.50	10.65	11.20	12.00	12.60	13.20	12.47	45.0
15	13.20	13.20	13.20	13.70	13.40	12.00	11.00	9.70	9.55	9.50	9.85	9.60	11.49	45.5
16	9.90	9.70	9.75	9.90	10.30	9.60	9.10	9.15	9.20	9.55	9.35	9.40	9.58	46.3
17	9.40	9.40	9.35	9.00	8.65	7.90	7.75	7.65	7.70	7.70	7.45	7.10	8.25	47.0
18	7.20	7.30	7.20	7.50	7.50	7.40	6.70	6.60	6.90	7.50	7.65	8.00	7.29	50.3
19	7.90	7.80	7.80	7.80	7.85	7.80	7.60	7.40	7.50	7.70	7.70	7.80	7.72	50.5
20	7.70	7.60	7.40	7.20	7.30	7.00	6.60	6.50	7.00	7.40	7.70	7.95	7.28	53.3
21	8.00	8.00	8.00	7.90	7.80	7.50	7.00	6.65	6.90	8.70	9.70	10.20	8.03	55.7
22	10.25	10.00	10.00	10.00	10.10	9.90	9.40	9.20	9.50	9.60	9.60	9.80	9.78	52.5
23	9.60	9.40	9.00	8.50	7.60	7.60	6.90	6.60	6.80	7.30	7.40	7.10	7.82	52.7
24	7.10	7.30	6.90	6.60	6.65	6.60	7.30	7.25	7.45	8.00	8.30	8.40	7.32	52.7
25	8.45	8.40	8.30	8.40	9.00	8.30	7.60	7.40	7.80	8.70	8.70	9.10	8.35	51.0
26	9.00	9.20	9.35	8.80	9.60	8.80	7.70	7.80	8.40	8.70	9.00	9.00	8.61	53.5
27	9.10	9.10	9.10	9.10	9.20	9.00	8.85	8.55	8.90	9.50	10.85	10.75	9.33	55.0
28	10.90	11.00	11.10	11.50	11.25	10.50	10.00	9.50	9.60	10.50	10.65	10.90	10.62	51.3
29	11.00	11.30	11.20	11.45	11.80	11.00	10.50	10.50	10.90	11.50	11.80	11.90	11.24	50.3
30	12.60	12.40	12.40	12.50	12.30	11.60	10.90	10.10	10.25	10.80	11.00	11.45	11.53	48.8
31	11.40	11.70	11.90	12.05	12.00	11.00	10.30	10.30	10.25	10.60	10.90	10.85	11.10	45.8
Mean	9.65	9.68	9.68	9.73	9.77	9.39	8.96	8.64	8.87	9.28	9.52	9.60	9.39	51.1
F°	38.7	38.6	38.6	38.3	38.1	39.7	41.8	43.3	42.3	40.3	39.2	38.9	39.7	

HYGROGRAPH.

JANUARY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	9.80	9.50	9.20	9.10	9.10	8.95	8.70	8.60	8.60	8.70	8.50	8.50	8.94
2	8.60	8.50	8.40	8.40	8.60	8.40	7.90	7.80	7.90	8.10	8.40	8.50	8.29
3	8.50	8.70	8.50	8.40	8.30	8.10	7.80	7.60	7.70	7.80	8.00	8.00	8.12
4	8.00	8.10	8.10	8.15	8.30	8.30	8.30	8.35	8.55	8.60	8.60	8.65	8.33
5	.....	.....	.....	.....	.....	.....	.....	7.80	7.80	7.70	7.65	7.60	7.85
6	7.60	7.70	8.00	8.20	8.30	8.05	8.10	8.10	8.00	8.00	8.00	7.80	7.99
7	8.00	8.30	8.40	8.65	8.45	8.30	8.25	8.10	8.40	8.55	8.70	8.80	8.41
8	9.00	9.15	9.50	9.60	9.60	9.30	9.10	9.00	9.30	9.30	9.60	9.75	9.35
9	9.80	9.85	9.90	9.90	9.95	10.40	10.50	10.10	9.90	10.00	10.30	10.50	10.09
10	10.30	10.60	10.70	10.80	10.90	10.80	10.90	10.90	11.20	11.40	11.50	11.50	10.96
11	11.70	11.80	11.70	11.80	12.00	11.80	11.10	10.85	10.85	10.90	11.30	10.80	11.38
12	10.90	11.00	10.80	11.00	11.40	11.10	10.60	10.35	10.70	11.10	11.35	11.50	10.98
13	11.50	11.50	11.80	12.10	12.00	11.70	10.90	10.70	10.70	11.00	11.70	11.80	11.45
14	12.10	12.40	12.60	12.90	13.00	12.00	11.00	10.60	10.80	11.50	12.00	12.60	11.96
15	12.50	12.40	12.50	12.90	12.60	11.50	10.50	9.80	9.60	9.55	9.70	9.40	11.08
16	9.70	9.50	9.50	9.60	9.90	9.40	9.00	8.85	8.90	9.00	9.30	9.10	9.31
17	9.20	9.20	9.20	9.10	8.80	8.50	8.00	7.80	7.80	7.80	7.55	7.30	8.35
18	7.35	7.60	7.60	7.60	7.65	7.40	6.85	6.90	7.15	7.60	7.80	8.10	7.47
19	8.00	8.00	7.90	7.90	7.90	7.80	7.65 *	7.50	7.70	7.80	7.75	7.80	7.81
20	7.70	7.60	7.40	7.30	7.35	7.25	7.00	6.90	7.20	7.45	7.80	7.90	7.40
21	7.95	7.95	8.00	7.95	7.90	7.55	7.20	7.00	7.00	8.60	9.50	9.90	8.04
22	10.00	9.85	9.90	9.90	9.90	9.90	9.60	9.50	9.60	9.60	9.60	9.70	9.75
23	9.50	9.25	8.80	8.30	7.80	7.85	7.50	7.55	7.40	7.60	7.60	7.50	8.05
24	7.50	7.40	7.05	7.00	6.90	7.20	7.75	7.65	8.00	8.30	8.30	8.50	7.63
25	8.50	8.50	8.40	8.50	8.90	8.45	8.00	8.60	8.70	9.00	8.90	9.10	8.63
26	9.00	9.00	9.20	8.80	9.35	8.70	8.00	7.90	8.55	8.80	8.80	8.80	8.74
27	9.00	9.00	9.10	9.20	9.20	9.10	9.30	9.20	9.20	9.60	10.50	10.40	9.40
28	10.60	10.50	10.70	11.00	10.80	10.30	9.60	9.30	9.80	10.10	10.30	10.60	10.30
29	10.90	11.00	10.90	11.20	11.40	10.90	10.70	10.90	11.10	11.20	11.50	11.70	11.12
30	12.00	12.00	11.95	12.00	11.90	11.30	10.75	10.30	.....	.....	.....	.....	11.46
31	.....	.....	.....	.....	.....	.....	.....	10.30	10.20	10.40	10.60	10.50	10.54
Mean	9.49	9.51	9.51	9.65	9.59	9.33	8.98	8.86	8.94	9.17	9.37	9.49	9.33
F ^o	37.7	37.7	37.7	37.0	37.3	38.6	40.2	40.7	40.3	39.2	38.3	37.7	38.6

January 5. 0^h—14^h the gas was extinguished by the condensed vapour in the ventilating pipes falling on the burners; 0.14 Div. added to the mean of the recorded observations to obtain the mean of the day.

30. 16^h—22^h } No picture during this period, the gas having been again extinguished; — 0.05 and
 31. 0^h—14^h } + 0.14 Div. applied, respectively, to obtain the daily means.

THERMOGRAPH.

FEBRUARY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	10.70	10.70	10.70	10.80	10.80	10.70	10.40	10.00	9.90	10.10	10.30	11.55	10.64	49.0
2	11.40	11.60	11.60	11.35	11.00	11.00	10.85	10.90	10.90	11.10	11.20	11.20	11.18	47.7
3	11.15	11.20	11.30	11.00	10.90	10.60	10.00	9.60	9.70	10.80	11.30	11.10	10.72	47.7
4	11.10	11.20	11.60	11.65	11.20	10.30	9.60	9.30	9.40	9.40	9.55	9.40	10.31	47.5
5	9.00	9.50	9.75	9.65	9.90	9.00	8.00	7.90	7.75	8.60	8.70	8.00	8.81	49.3
6	7.70	7.70	7.30	7.20	7.30	7.10	6.80	6.80	6.80	6.70	6.50	6.20	7.01	50.5
7	6.30	6.45	6.70	6.90	7.00	6.60	5.50	5.50	5.70	5.90	6.50	7.05	6.34	53.3
8	7.20	7.30	7.00	6.90	6.55	6.00	6.10	5.90	5.90	6.60	7.00	7.20	6.64	55.3
9	7.15	7.05	7.40	7.75	7.35	6.60	6.00	5.40	6.00	6.70	6.80	6.70	6.74	56.3
10	6.50	6.60	6.90	7.00	7.60	6.60	6.20	6.10	6.30	6.70	6.90	7.00	6.70	58.0
11	7.35	7.70	7.70	7.50	7.40	7.30	7.10	6.80	6.90	7.90	7.30	7.50	7.37	59.3
12	7.40	7.30	7.30	7.00	6.80	6.60	6.40	6.20	6.20	6.20	6.75	7.00	6.76	57.0
13	7.15	7.80	7.95	8.10	7.65	7.20	6.90	6.40	6.35	6.50	6.80	7.15	7.16	57.5
14	7.45	7.70	7.65	7.90	8.00	7.10	6.90	6.60	6.90	7.60	7.80	7.70	7.44	56.0
15	8.10	8.00	8.15	8.00	7.70	7.10	6.75	6.40	6.80	7.35	7.80	8.10	7.52	56.5
16	8.20	8.20	8.60	8.60	9.00	8.00	6.65	6.60	6.60	7.95	8.80	9.40	8.05	57.9
17	9.90	9.50	9.20	9.10	9.10	8.60	8.65	8.90	9.50	9.75	9.85	10.00	9.34	56.7
18	10.20	10.85	11.00	11.20	11.00	10.95	10.90	11.15	11.30	11.30	11.25	11.20	11.02	52.4
19	11.10	11.10	11.15	11.15	11.50	11.50	11.20	11.00	11.10	11.10	11.20	11.20	11.18	50.8
20	11.10	11.00	11.10	11.30	11.25	11.00	10.90	10.80	11.10	11.20	11.40	11.30	11.12	49.2
21	11.35	11.40	11.50	11.50	11.40	11.10	10.90	10.70	11.20	11.20	11.35	11.50	11.26	47.0
22	11.50	11.70	11.70	11.45	11.40	10.70	10.00	9.30	9.10	9.15	9.25	9.30	10.38	48.8
23	9.45	9.80	10.40	10.55	10.20	9.10	8.10	7.50	7.50	7.95	8.40	8.60	8.96	51.5
24	9.50	10.10	11.00	11.30	11.50	9.80	8.50	7.90	7.70	8.45	9.00	8.90	9.47	52.5
25	9.05	9.00	9.15	9.10	8.95	8.40	8.00	7.80	8.00	8.20	8.30	8.25	8.52	52.7
26	8.50	8.60	8.50	8.30	8.00	7.25	6.20	6.15	6.05	6.45	6.80	6.90	7.31	53.8
27	7.00	7.15	7.60	7.50	7.30	7.00	6.90	6.55	6.55	7.00	7.40	7.55	7.13	56.7
28	7.75	7.70	8.00	8.00	8.00	7.45	7.20	7.50	7.70	7.80	8.25	8.40	7.81	56.8
29	8.50	8.60	8.60	8.70	8.80	7.90	6.90	6.95	7.15	8.30	9.15	9.70	8.27	56.3
Mean	8.92	9.05	9.19	9.19	9.12	8.57	8.09	7.88	8.00	8.41	8.71	8.79	8.66	53.2
F°	40.5	40.0	39.3	39.3	39.6	42.3	44.3	45.5	44.9	43.1	41.9	41.2	42.0	

HYGROGRAPH.

FEBRUARY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	10.45	10.50	10.40	10.50	10.50	10.30	10.15	10.00	10.10	10.30	10.90	11.00	10.43
2	10.95	11.20	11.20	11.00	10.90	10.80	10.60	10.60	10.60	10.70	10.70	10.70	10.83
3	10.80	10.80	10.80	10.60	10.50	10.20	9.70	9.90	9.90	10.60	10.90	10.80	10.46
4	10.80	10.80	11.20	11.10	10.80	10.15	9.60	9.40	9.40	9.35	9.40	9.20	10.10
5	8.90	9.30	9.50	9.40	9.60	8.90	8.20	8.10	8.00	8.65	8.70	8.20	8.79
6	8.00	8.00	7.80	7.60	7.50	7.40	7.20	7.15	7.20	7.15	7.00	6.80	7.40
7	7.20	7.20	7.35	7.40	7.40	6.80	6.30	6.10	6.10	6.40	7.00	7.40	6.89
8	7.40	7.50	7.10	7.00	6.80	6.40	6.40	6.40	6.40	7.10	7.40	7.60	6.96
9	7.60	7.50	7.70	7.90	7.55	7.10	7.00	6.70	6.90	7.15	7.10	7.00	7.27
10	6.90	6.80	7.10	7.20	7.60	6.90	6.70	6.65	6.75	7.10	7.20	7.25	7.01
11	7.50	7.70	7.80	7.60	7.50	7.35	7.30	7.00	7.00	7.80	7.40	7.55	7.46
12	7.50	7.40	7.40	7.10	7.00	6.95	6.80	6.60	6.50	6.60	7.00	7.30	7.01
13	7.30	7.90	7.90	8.00	7.65	7.30	7.10	6.70	6.60	6.70	7.10	7.40	7.30
14	7.30	7.55	7.50	7.80	7.70	7.10 *	6.90	7.40 *	8.00	7.10	7.90	8.30	7.55
15	8.20	8.20	8.10	8.00	8.60	7.60	7.40	7.20	7.35	7.65	7.90	8.20	7.87
16	8.30	8.40	8.60	8.60	8.95	8.20	7.40	7.65	7.65	8.30	8.80	9.20	8.42
17	9.70	9.40	9.15	9.20	9.35	9.10	9.10	9.20	9.65	9.70	9.80	9.90	9.44
18	10.10	10.70	11.00	11.10	10.90	10.80	10.70	10.70	11.00	11.10	11.00	11.00	10.84
19	10.90	10.90	10.90	10.95	11.20	11.60	11.30	11.20	10.90	10.80	10.85	10.80	11.03
20	10.70	10.80	10.75	10.85	10.95	10.80	11.00	10.95	10.90	10.90	10.95	10.90	10.87
21	10.90	11.00	11.00	11.00	10.95	11.10	11.10	10.80	10.70	10.70	10.90	11.00	10.93
22	11.00	11.10	11.15	10.95	10.90	10.60	10.00	9.60	9.40	9.30	9.40	9.50	10.24
23	9.50	9.80	10.20	10.30	10.00	9.25	8.70	8.55	8.50	8.60	8.90	9.00	9.28
24	9.70	10.10	10.75	11.00	11.10	9.75	9.00	8.60	8.55	9.00	9.10	9.10	9.65
25	9.20	9.20	9.25	9.10	9.00	8.60	8.45	8.40	8.40	8.55	8.60	8.55	8.78
26	8.70	8.70	8.65	8.50	8.15	7.60	7.00	7.00	7.00	7.00	7.20	7.30	7.73
27	7.30	7.40	7.70	7.65	7.50	7.40	7.55	7.60	7.50	7.75	8.00	8.10	7.62
28	8.10	8.25	8.40	8.40	8.50	8.30	8.20	8.30	8.55	8.40	8.60	8.70	8.39
29	8.70	8.80	8.90	8.90	8.90	8.30	8.30	8.30	8.45	8.90	9.40	9.50	8.78
Mean	8.95	9.07	9.15	9.13	9.10	8.71	8.45	8.37	8.41	8.60	8.80	8.87	8.80
F°	40.3	39.7	39.4	39.3	39.6	41.5	42.6	43.1	42.9	42.0	41.1	41.0	41.0

February 14. 10^h the outline faint in this part of the picture; the readings consequently uncertain.

THERMOGRAPH.

MARCH, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	9.65	9.85	9.90	10.00	10.15	9.95	9.60	9.20	8.85	8.70	8.70	8.65	9.43	55.0
2	8.55	8.80	8.90	8.90	8.90	8.80	8.45	8.35	8.20	8.40	8.60	9.00	8.66	55.8
3	9.00	9.10	9.10	9.30	9.45	9.20	8.90	8.90	8.95	9.20	9.60	9.60	9.19	53.8
4	9.85	9.90	10.00	10.20	10.30	10.00	9.70	9.60	9.60	9.80	10.00	10.00	9.91	54.2
5	10.00	10.10	10.20	10.15	9.90	9.10	8.60	8.55	8.60	8.75	9.00	9.00	9.33	54.7
6	9.25	9.10	9.20	9.00	8.95	9.05	9.05 *	9.00	8.80	8.80	9.20	9.50	9.08	53.5
7	10.00	10.20	10.30	10.50	10.20	9.40	8.90	8.90	8.85	8.90	9.15	10.40	9.64	53.3
8	11.00	11.20	11.60	10.90	10.50	9.55	8.05	6.90	6.25	7.60	8.95	9.30	9.32	54.7
9	10.00	9.90	10.00	10.50	10.30	9.90	9.30	8.30	7.95	8.50	8.65	8.90	9.35	55.7
10	9.80	10.80	10.90	11.00	10.35	9.00	7.65	7.60	7.65	7.80	8.60	8.95	9.18	54.3
11	9.10	9.20	9.60	9.80	9.60	9.00	9.25	8.70	9.10	9.80	10.90	11.40	9.62	54.2
12	11.90	12.30	12.60	12.70	12.10	10.05	9.70	9.60	9.90	10.50	10.90	11.00	11.10	51.0
13	10.90	11.00	11.20	11.45	11.30	10.90	10.00	9.60	9.50	10.50	11.40	12.00	10.81	49.3
14	12.10	11.95	12.00	12.15	11.35	10.25	9.35	8.90	9.60	10.40	10.80	11.10	10.83	47.8
15	11.80	11.80	11.90	12.15	11.40	10.20	10.00	10.00	10.20	10.40	10.60	10.65	10.93	48.7
16	10.40	9.85	10.30	10.55	9.85	8.60	7.60	7.20	8.25	8.20	8.10	7.75	8.89	51.2
17	8.00	8.45	8.75	8.85	8.85	8.60	8.20	8.25	8.35	8.40	8.80	8.75	8.52	53.3
18	9.00	8.90	8.70	8.70	8.50	7.75	7.30	7.10	7.50	7.90	7.85	7.70	8.08	54.5
19	7.50	7.50	7.80	8.20	8.10	7.90	7.20	6.50	6.50	6.80	7.30	7.80	7.43	57.2
20	8.00	8.20	8.25	8.40	8.10	7.70	7.20	6.90	7.00	7.65	8.00	8.15	7.79	57.7
21	8.30	8.35	8.50	8.70	8.30	7.95	7.45	7.25	7.40	7.50	8.10	8.15	7.99	58.3
22	8.45	8.60	9.60	9.50	9.00	8.10	7.50	7.05	7.35	7.70	8.00	8.45	8.28	58.5
23	9.30	10.10	10.50	10.20	9.65	9.25	8.80	8.30	8.80	9.30	9.50	9.90	9.47	57.3
24	9.85	9.90	10.00	10.20	10.30	10.30	9.90	9.50	9.00	9.20	10.20	10.10	9.87	55.7
25	10.40	10.30	10.40	10.90	10.50	10.00	9.30	8.90	8.60	9.20	9.85	10.40	9.90	54.7
26	10.60	10.50	10.60	10.50	10.15	10.50	10.00	9.95	9.15	10.20	10.20	10.95	10.19	53.7
27	11.15	11.40	11.70	11.80	11.10	9.90	8.10	7.10	6.85	7.90	9.90	11.20	9.84	52.3
28	11.70	11.95	12.20	12.00	11.25	10.00	9.80	8.90	8.50	8.70	9.50	9.90	10.45	51.3
29	10.10	10.90	11.50	12.30	11.00	9.80	9.20	8.60	8.60	9.30	10.90	11.50	10.31	52.7
30	12.15	12.70	13.10	13.15	12.00	9.70	8.35	7.30	6.60	8.80	9.10	9.95	10.18	52.2
31	11.30	12.40	13.10	13.15	10.65	8.20	6.60	5.65	5.70	6.80	8.60	10.40	9.54	53.0
Mean	9.97	10.17	10.40	10.51	10.07	9.31	8.68	8.28	8.26	8.76	9.32	9.69	9.45	53.9
F°	36.3	35.5	34.5	34.0	36.0	39.4	42.4	44.4	44.5	42.1	40.0	37.7	38.8	

March 6. 12^b Light extinguished while a purifier was attached to the gas meter.

HYGROGRAPH.

MARCH, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	9.45	9.60	9.65	9.80	9.80	9.70	9.60	9.40	9.25	9.10	9.05	9.05	9.46
2	9.05	9.20	9.25	9.30	9.30	9.25	9.20	8.80	8.70	8.70	8.75	8.90	9.03
3	9.00	9.20	9.30	9.60	9.70	9.40	9.50	9.40	9.50	9.65	9.80	9.85	9.49
4	10.05	10.00	10.15	10.30	10.25	10.10	10.00	9.90	9.90	10.00	10.10	10.10	10.07
5	10.05	10.10	10.10	10.00	9.75	9.30	9.10	9.15	9.35	9.30	9.35	9.35	9.58
6	9.55	9.35	9.25	9.20	9.40	9.30	9.35	9.40	9.35	9.30	9.50	9.65	9.38
7	9.90	10.00	10.10	10.30	10.05	9.70	9.50	9.50	9.40	9.40	9.50	10.30	9.80
8	10.75	10.90	10.70	10.70	10.60	9.50	8.45	7.90	7.60	8.10	8.90	9.30	9.45
9	9.80	9.70	9.80	10.20	10.00	9.60	9.10	8.40	8.50	8.75	8.90	9.10	9.32
10	9.60	10.20	10.40	10.50	10.00	9.10	8.30	8.30	8.30	8.35	9.00	9.30	9.26
11	9.30	9.30	9.80	9.80	9.70	9.70	10.00	9.75	9.90	10.30	11.00	11.30	9.99
12	11.70	12.00	12.20	12.20	11.70	10.30	10.40	10.40	10.70	11.00	11.20	11.50	11.20
13	11.30	11.30	11.40	11.60	11.60	11.30	11.00	10.95	10.90	11.30	11.60	11.90	11.35
14	11.95	11.90	11.90	11.95	11.45	10.80	10.50	10.20	10.70	11.20	11.20	11.40	11.26
15	11.70	11.85	11.80	11.80	11.30	10.60	10.50	10.50	10.65	10.75	10.80	10.70	11.08
16	10.40	9.90	10.40	10.40	9.80	9.15	8.60	8.30	8.90	8.50	8.30	8.00	9.22
17	8.25	8.60	8.80	8.90	8.90	8.70	8.40	8.40	8.50	8.60	8.80	8.80	8.64
18	9.00	8.80	8.75	8.70	8.50	8.00	7.70	7.70	8.00	8.00	7.90	7.75	8.23
19	7.60	7.60	7.80	8.20	8.10	8.00	7.60	7.30	7.40	7.45	7.70	8.10	7.74
20	8.20	8.30	8.45	8.45	8.30	8.10	7.80	7.80	8.00	8.00	8.30	8.30	8.18
21	8.40	8.45	8.60	8.70	8.40	8.20	8.00	7.90	8.00	8.00	8.25	8.30	8.27
22	8.50	8.60	9.50	9.40	9.10	8.80	8.50	8.35	8.55	8.50	8.60	8.80	8.77
23	9.20	9.70	10.30	10.00	9.60	9.50	9.20	9.00	9.30	9.60	9.70	10.10	9.60
24	10.20	10.15	10.15	10.20	10.30	10.40	10.30	9.70	9.50	9.50	10.20	10.10	10.06
25	10.40	10.20	10.30	10.55	10.30	10.00	9.60	9.30	9.00	9.50	9.90	10.30	9.95
26	10.40	10.40	10.50	10.40	10.20	9.95	9.60	9.80	9.80	10.40	10.45	10.80	10.23
27	11.00	11.20	11.40	11.50	11.00	10.40	9.60	9.15	9.20	9.55	10.30	11.10	10.45
28	11.40	11.60	11.70	11.70	11.25	10.40	10.40	9.80	9.50	9.60	10.10	10.10	10.66
29	10.30	10.70	11.20	11.90	11.30	10.60	10.20	9.90	9.90	10.30	11.10	11.40	10.73
30	11.80	12.20	12.50	12.50	11.70	10.90	8.40	7.50	8.65	9.20	9.60	10.25	10.43
31	11.30	12.10	12.50	12.50	10.80	9.20	8.40	7.80	8.40	8.95	9.80	10.75	10.21
Mean	9.98	10.10	10.28	10.36	10.07	9.61	9.25	9.02	9.14	9.32	9.60	9.82	9.71
F°	34.3	33.7	32.9	32.5	33.8	36.1	37.7	38.7	38.2	37.4	36.1	35.0	35.6

THERMOGRAPH.

APRIL, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Rom.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	11.30	11.40	10.00	11.50	8.90	7.00	4.60	3.80	4.00	4.85	5.90	6.40	7.47	53.7
2	7.00	7.25	7.30	7.40	6.30	5.00	4.10	4.40	6.30	6.60	6.70	7.05	6.28	56.5
3	8.10	8.20	8.00	7.50	7.15	6.80	6.30	6.30	6.10	6.40	6.60	6.80	7.02	56.0
4	6.80	7.30	7.80	7.80	7.25	6.50	6.20	6.30	6.40	7.20	8.45	9.20	7.27	59.5
5	9.50	9.80	9.50	9.00	8.10	6.70	6.25	6.30	7.40	7.20	7.80	8.70	8.02	62.5
6	8.60	8.60	8.65	8.80	8.50	7.20	7.10	7.40	7.80	8.50	8.40	8.55	8.18	60.7
7	8.50	8.55	8.90	8.90	8.30	7.10	6.30	5.80	5.60	6.70	7.70	7.80	7.51	63.2
8	7.80	7.50	7.60	7.50	7.00	7.00	6.80	6.90	6.90	8.00	8.00	8.20	7.43	64.5
9	8.60	8.50	9.00	9.30	8.20	7.70	7.10	6.60	6.50	7.10	7.60	8.20	7.95	62.0
10	7.90	7.90	7.80	7.70	6.90	6.20	6.20	5.30	5.50	6.30	6.60	7.00	6.78	62.2
11	7.30	7.60	8.30	8.00	7.10	6.00	5.60	5.70	6.40	6.40	6.50	6.50	6.78	59.8
12	6.30	6.40	6.50	7.30	7.40	5.70	4.95	5.30	5.20	5.80	6.70	7.40	6.25	59.5
13	8.00	7.70	7.60	7.80	6.55	5.50	4.90	4.40	4.60	5.45	6.50	7.20	6.35	62.2
14	8.10	8.50	8.80	8.70	8.20	7.40	7.00	5.90	6.40	7.00	7.60	7.70	7.61	64.0
15	8.05	8.40	8.70	8.50	8.10	7.20	6.70	6.75	7.40	8.15	9.20	9.70	8.07	62.0
16	9.80	9.55	9.65	9.60	9.00	8.30	7.70	7.60	7.90	8.70	9.60	10.00	8.95	59.2
17	10.40	10.60	10.90	10.60	9.45	8.90	8.20	7.50	7.90	8.90	9.00	9.20	9.30	58.2
18	9.20	9.20	8.90	9.00	9.05	8.70	8.10	7.40	6.30	6.20	7.50	8.00	8.13	59.5
19	7.80	7.70	7.85	8.35	8.25	8.50	7.90	7.60	7.60	7.40	8.30	8.60	7.99	62.0
20	9.30	9.30	9.10	9.60	9.40	8.80	7.40	6.40	6.00	6.10	7.70	8.60	8.14	62.5
21	9.65	10.00	10.70	10.50	8.50	6.90	5.80	5.35	5.40	5.55	6.50	7.75	7.72	61.4
22	8.65	8.50	8.40	8.35	7.20	6.00	5.70	5.30	5.50	5.90	6.40	6.90	6.90	64.5
23	7.40	7.70	8.00	7.80	7.10	6.10	5.70	5.20	5.00	5.45	6.40	7.70	6.63	65.4
24	8.50	8.80	8.70	8.50	7.00	6.20	5.30	5.00	5.40	5.70	7.20	7.70	7.00	65.4
25	8.40	9.20	9.60	8.70	7.50	5.30	3.20	2.45	2.60	3.25	5.20	5.50	5.90	66.4
26	5.80	6.20	6.70	7.00	6.70	5.90	5.00	6.00	5.00	5.30	6.40	6.80	6.07	67.4
27	7.80	8.45	8.60	9.00	9.20	8.85	9.00	8.80	8.90	9.00	9.20	9.20	8.83	66.5
28	9.30	9.50	10.60	10.50	9.20	8.00	7.80	7.30	7.15	7.70	8.80	8.60	8.70	64.5
29	8.95	9.60	9.60	9.30	9.20	7.50	7.50	6.90	7.10	8.00	8.30	8.60	8.38	61.5
30	8.80	9.20	9.40	9.40	8.60	7.90	7.40	7.80	8.10	8.10	8.80	9.40	8.66	64.7
Mean	8.39	8.57	8.71	8.73	7.98	7.03	6.39	6.12	6.28	6.76	7.52	7.96	7.54	61.9
F °	42.9	42.0	41.4	41.2	44.8	49.1	52.1	53.5	52.7	50.4	46.8	44.9	46.7	

HYGROGRAPH.

APRIL, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	11.40	11.50	10.70	11.25	9.20	8.00	7.00	6.40	6.80	7.00	7.60	7.90	8.73
2	8.20	8.30	8.40	8.55	7.90	7.10	6.80	6.30	7.10	7.10	7.10	7.50	7.53
3	8.20	8.30	8.20	7.70	7.50	7.10	6.80	6.70	6.80	6.90	7.00	7.00	7.35
4	7.00	7.45	7.80	7.80	7.60	7.50	7.55	7.70	8.00	8.30	8.90	9.35	7.91
5	9.40	9.60	9.30	8.90	8.35	8.00	7.70	7.65	7.90	7.80	8.20	8.80	8.47
6	8.80	8.70	8.70	8.80	8.70	8.00	8.00	7.90	8.20	8.50	8.50	8.50	8.44
7	8.60	8.60	8.85	8.80	8.50	8.00	7.50	7.60	7.50	7.90	8.20	8.20	8.19
8	8.10	7.80	7.80	7.70	7.35	7.25	7.20	7.30	7.35	8.30	8.50	8.40	7.75
9	8.65	8.60	8.90	9.20	8.40	8.00	7.80	7.30	7.40	7.70	8.00	8.30	8.19
10	8.00	8.05	7.90	7.70	7.10	6.90	6.90	6.70	6.90	7.15	7.20	7.50	7.33
11	7.60	7.85	8.30	8.00	7.30	6.90	6.90	6.80	6.80	6.65	6.80	6.80	7.23
12	6.60	6.60	6.80	7.40	7.75	6.80	6.60	6.40	6.60	6.70	7.20	7.60	6.92
13	8.00	7.90	7.80	7.95	7.10	6.80	6.50	6.10	6.35	6.60	7.00	7.50	7.13
14	8.10	8.50	8.80	8.60	8.10	7.70	7.50	7.20	7.50	7.80	8.05	8.00	7.99
15	8.35	8.70	8.80	9.00	8.70	8.20	7.90	8.15	9.20	9.60	9.80	9.90	8.86
16	10.00	9.80	9.85	9.80	9.50	9.50	9.20	9.20	9.20	9.70	10.00	10.20	9.66
17	10.40	10.50	10.70	10.60	9.90	9.60	9.30	8.90	9.10	9.60	9.60	9.60	9.82
18	9.30	9.10	8.80	8.90	9.20	9.15	9.00	8.60	8.00	8.00	8.50	8.60	8.76
19	8.50	8.20	8.00	8.50	8.50	8.80	8.45	8.30	8.20	8.20	8.50	8.70	8.40
20	9.10	9.15	8.95	9.45	9.40	9.00	8.50	8.05	8.20	8.10	8.70	9.30	8.83
21	9.80	10.10	10.60	10.40	9.00	8.05	7.60	7.40	7.50	7.50	7.80	8.60	8.70
22	8.90	8.85	9.00	8.70	8.20	7.90	7.70	7.30	7.50	7.70	7.80	8.20	8.15
23	8.50	8.60	8.90	8.70	8.30	7.80	7.50	7.10	7.20	7.20	7.75	8.20	7.98
24	8.70	8.90	8.90	8.70	7.80	7.60	7.20	7.00	6.90	7.00	7.75	8.00	7.87
25	8.40	9.10	9.50	8.80	7.85	6.40	5.35	5.40	5.70	5.90	6.60	6.55	7.13
26	6.50	6.60	7.00	7.30	7.10	6.90	6.40	6.80	6.50	6.50	6.90	7.20	6.81
27	8.00	8.40	8.60	8.90	9.00	9.00	9.00	9.00	9.20	9.20	9.40	9.40	8.93
28	9.40	9.50	10.30	10.10	9.65	9.20	9.00	8.55	8.80	8.55	9.20	8.90	9.26
29	9.20	9.60	9.60	9.30	8.80	8.60	8.10	8.40	8.55	9.00	8.90	8.90	8.91
30	8.80	9.10	9.15	9.20	8.60	8.80	8.20	8.00	8.20	8.10	8.60	9.10	8.65
Mean	8.62	8.73	8.83	8.82	8.35	7.95	7.64	7.47	7.64	7.81	8.13	8.36	8.20
F°	41.9	41.4	40.9	40.9	43.1	45.1	46.6	47.3	46.6	45.8	44.2	43.1	43.8

THERMOGRAPH.

MAY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	10.00	10.20	10.10	9.65	9.20	9.05	8.85	9.10	9.15	9.30	9.95	10.00	9.55	62.5
2	10.50	11.40	11.50	11.10	9.50	8.60	8.00	7.60	7.60	8.00	8.60	9.20	9.30	59.8
3	10.00	10.90	10.80	10.20	9.00	8.30	7.60	7.40	7.30	7.40	8.60	9.30	8.90	62.0
4	9.40	9.60	9.70	9.45	9.00	8.55	8.00	7.85	7.60	8.00	8.50	9.30	8.75	59.0
5	10.20	10.90	11.00	10.70	9.30	8.10	7.60	7.40	7.40	7.90	8.90	8.90	9.03	62.5
6	9.30	9.40	9.40	9.25	8.30	8.10	7.50	7.00	7.30	7.65	8.15	8.80	8.35	62.0
7	9.10	9.00	9.00	9.20	8.90	8.65	7.55	8.30	7.60	8.00	8.80	9.10	8.60	60.0
8	9.30	9.60	9.60	9.30	8.80	8.00	7.70	7.80	7.60	7.85	8.00	8.40	8.50	57.7
9	8.60	9.20	9.00	8.90	8.55	7.80	7.70	7.15	7.00	7.05	8.00	8.60	8.13	59.1
10	8.60	8.80	8.70	8.30	7.80	6.30	4.75	3.90	3.70	3.70	5.40	6.80	6.40	62.2
11	7.70	7.80	7.95	7.75	7.10	5.50	4.10	3.60	3.00	3.00	4.60	6.00	5.68	66.5
12	7.20	7.30	7.40	7.50	7.20	6.50	4.45	4.70	4.40	4.60	5.30	5.70	6.02	67.3
13	6.00	6.05	6.20	6.30	6.10	5.95	5.90	5.90	6.20	6.55	7.10	7.40	6.30	63.9
14	8.00	7.80	7.50	7.10	6.85	6.50	6.60	5.75	6.10	6.40	6.80	7.50	6.91	60.1
15	7.45	7.45	7.90	7.60	7.00	6.20	6.00	5.95	6.80	7.40	7.50	7.60	7.07	60.0
16	7.70	8.30	8.30	7.80	6.90	6.25	5.20	4.40	5.80	6.00	6.20	6.60	6.62	61.2
17	7.00	7.30	7.65	7.10	6.25	6.00	5.25	5.55	5.40	6.45	7.50	7.90	6.61	60.0
18	8.90	8.45	8.30	7.95	6.70	6.20	5.50	5.25	6.00	6.70	7.10	7.50	7.05	59.3
19	7.80	8.05	8.30	7.60	7.55	5.90	5.60	5.10	4.90	5.20	6.50	7.40	6.66	59.0
20	8.00	8.10	8.20	8.00	6.80	5.20	4.30	3.80	3.90	4.20	5.30	6.30	6.01	59.7
21	7.40	8.15	8.80	7.50	5.40	3.90	2.95	2.50	2.90	3.60	4.40	5.30	5.23	63.3
22	5.50	5.70	6.00	5.90	5.40	5.20	4.40	5.20	5.20	4.00	5.90	6.90	5.44	64.0
23	7.50	7.80	8.10	7.15	5.50	5.00	4.55	4.20	4.60	5.00	6.00	6.45	5.98	63.5
24	6.90	6.90	6.90	6.10	6.60	5.60	5.70	5.60	5.40	5.60	6.20	6.50	6.17	63.0
25	6.40	6.50	6.70	6.50	5.90	5.60	4.45	4.00	4.40	5.10	5.65	6.20	5.62	63.7
26	6.60	6.70	6.70	5.95	5.00	4.20	3.70	4.70	5.90	5.60	5.50	5.80	5.53	64.5
27	6.50	6.70	7.00	6.10	5.35	4.40	3.80	3.95	4.30	5.00	5.40	5.80	5.36	64.0
28	6.25	6.60	6.65	6.60	5.50	5.70	4.30	4.10	3.70	5.30	5.70	6.50	5.58	65.2
29	7.00	7.50	8.00	7.10	6.20	6.60	6.20	6.00	6.15	6.40	6.80	7.15	6.76	65.5
30	7.40	8.50	9.00	8.40	7.10	6.70	6.35	6.20	6.40	6.90	7.50	8.10	7.38	61.0
31	8.20	8.40	8.50	8.35	8.15	7.70	7.60	7.75	7.90	7.90	7.95	7.75	8.01	58.7
Mean	7.95	8.23	8.35	7.95	7.19	6.52	5.88	5.73	5.86	6.19	6.86	7.44	7.02	61.9
F°	44.5	43.2	42.7	44.5	47.9	51.1	54.1	54.8	54.2	52.9	49.6	46.8	48.7	

HYGROGRAPH.

MAY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	9.50	9.80	9.80	9.40	9.00	8.90	9.30	9.65	9.80	10.00	10.25	10.20	9.63
2	10.30	11.00	11.20	10.90	10.00	9.80	9.35	9.10	9.20	9.20	9.50	9.80	9.95
3	10.20	10.80	10.90	10.50	9.60	9.20	7.80	7.60	7.45	7.55	8.50	9.10	9.10
4	9.20	9.40	9.40	9.30	8.80	9.80	9.50	9.20	9.00	9.20	9.30	9.70	9.32
5	10.30	10.90	10.90	10.60	9.75	9.50	9.10	8.85	9.00	9.20	9.60	9.40	9.76
6	9.55	9.70	9.75	9.70	9.30	9.20	8.85	8.55	8.60	8.90	9.00	9.40	9.21
7	9.40	9.30	9.30	9.30	9.20	8.90	8.90	9.00	8.85	9.30	9.50	9.60	9.21
8	9.70	9.85	9.75	9.50	9.10	8.55	8.50	8.50	8.30	8.50	8.50	8.80	8.96
9	8.90	9.30	9.25	9.15	9.00	8.40	8.20	8.00	7.80	7.70	8.20	8.70	8.55
10	8.70	8.80	8.70	8.50	8.30	7.30	6.40	6.00	5.90	5.90	6.60	7.40	7.38
11	8.15	8.25	8.30	8.20	7.75	7.10	6.50	6.00	5.50	5.20	5.70	6.40	6.92
12	7.40	7.50	7.55	7.65	7.50	7.00	6.50	5.90	5.80	5.75	6.00	6.20	6.73
13	6.40	6.40	6.50	6.60	6.50	6.40	6.30	6.35	6.80	7.10	7.60	7.80	6.73
14	8.20	8.00	7.60	7.40	7.45	7.20	7.20	6.80	7.00	7.20	7.40	7.80	7.44
15	7.60	7.80	8.10	8.00	7.60	7.30	7.20	7.00	7.60	7.60	7.60	7.90	7.61
16	7.90	8.40	8.30	8.00	7.60	7.30	6.90	6.70	6.65	6.80	6.70	7.00	7.35
17	7.20	7.60	7.80	7.60	7.30	7.10	6.40	7.00	7.10	7.50	7.90	8.20	7.39
18	8.90	8.65	8.40	8.00	7.20	7.10	6.80	6.80	7.20	7.60	7.70	7.90	7.69
19	8.00	8.10	8.35	7.90	7.50	7.50	7.50	7.30	7.10	7.20	7.30	7.90	7.64
20	8.10	8.20	8.20	8.00	7.40	6.50	6.10	6.10	6.15	6.20	6.50	7.00	7.04
21	7.65	8.10	8.70	7.85	6.70	5.80	5.40	5.35	5.60	5.80	5.80	5.80	6.55
22	5.85	6.10	6.40	6.20	6.10	6.00	5.50	6.20	6.20	6.00	6.80	7.30	6.22
23	7.60	8.00	8.00	7.40	6.30	6.00	5.80	5.80	6.10	6.50	6.80	7.00	6.77
24	7.30	7.20	7.20	6.70	7.00	6.50	6.50	6.50	6.05	6.40	6.70	6.75	6.73
25	6.60	6.80	7.10	6.80	6.50	6.20	5.90	5.75	5.80	6.10	6.30	6.80	6.39
26	6.90	7.00	7.00	6.50	5.80	5.60	5.70	5.80	6.20	6.10	5.80	6.20	6.22
27	6.80	6.90	7.20	6.50	6.10	5.90	5.60	5.50	5.70	6.10	6.20	6.40	6.24
28	6.60	6.90	6.90	6.90	6.20	6.10	5.50	5.80	5.80	6.10	6.20	6.70	6.31
29	7.10	7.45	7.90	7.20	6.60	7.00	6.90	6.90	7.10	7.20	7.60	7.80	7.23
30	8.20	8.60	9.00	8.50	8.00	7.70	7.50	7.60	7.60	7.80	8.30	8.70	8.12
31	8.85	9.00	8.90	8.85	8.65	8.40	8.20	7.90	8.00	7.90	7.90	7.80	8.36
Mean	8.16	8.38	8.46	8.18	7.74	7.46	7.15	7.08	7.13	7.28	7.54	7.85	7.70
F°	44.0	43.0	42.6	43.9	46.2	47.4	48.8	49.2	49.0	48.3	47.1	45.5	46.3

May 10—11. 14^h—14^h a faint picture; the Zero line hard to distinguish.

THERMOGRAPH.

JUNE, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	7.60	7.60	7.65	7.60	7.40	6.80	6.10	6.00	5.40	4.80	6.30	7.50	6.73	59.5
2	8.20	8.00	7.80	7.60	6.50	5.30	4.00	3.50	3.40	3.30	5.20	6.30	5.76	61.2
3	7.20	7.40	7.80	6.80	5.40	4.30	3.10	2.65	2.30	2.20	3.70	5.15	4.83	63.0
4	6.00	6.85	7.45	6.50	5.60	4.30	3.20	3.00	2.90	2.60	4.00	5.55	4.83	65.5
5	6.40	7.60	7.25	6.90	6.00	5.20	4.60	4.20	3.90	3.95	5.50	6.50	5.67	63.8
6	6.70	6.80	7.10	6.60	5.50	5.00	4.10	4.30	3.45	3.40	4.80	5.50	5.27	65.5
7	6.50	6.70	6.75	6.20	4.80	3.80	3.30	3.20	3.60	4.00	5.00	5.70	4.96	65.0
8	6.00	5.80	5.60	5.30	4.50	4.10	3.50	3.00	2.90	3.30	4.10	4.45	4.38	67.0
9	4.70	4.70	4.90	4.60	4.40	3.70	3.10	2.40	2.80	3.50	4.30	4.90	4.00	68.7
10	5.70	6.70	7.40	7.00	5.60	4.20	3.20	2.70	2.10	3.20	4.60	5.85	4.85	66.0
11	6.70	7.10	7.40	6.35	5.05	3.80	2.70	2.00	2.40	3.30	5.30	6.00	4.84	67.5
12	6.70	6.60	6.40	5.80	5.10	4.70	4.30	4.70	4.50	4.90	4.90	4.95	5.30	69.3
13	5.00	5.00	5.15	5.00	4.70	4.15	4.10	4.25	4.10	4.40	4.60	4.90	4.61	68.0
14	5.00	5.70	6.00	6.00	5.50	4.90	4.50	4.70	4.90	5.10	6.40	7.10	5.48	67.0
15	7.55	7.80	8.00	7.00	6.15	5.20	4.80	4.00	3.50	4.30	4.90	5.60	5.73	66.1
16	6.80	7.70	8.10	6.90	5.70	4.60	3.70	3.45	3.40	4.10	4.90	5.70	5.35	66.0
17	6.50	6.90	6.70	6.30	5.50	5.00	4.20	3.20	3.00	3.00	4.40	5.50	5.02	66.3
18	6.70	7.60	8.10	6.80	5.50	4.60	3.70	3.60	4.20	4.50	5.45	6.50	5.60	66.0
19	6.65	6.80	6.85	6.70	6.10	5.70	5.05	3.70	4.00	4.80	5.20	5.50	5.59	66.5
20	6.15	6.25	6.20	5.80	5.20	4.70	5.35	5.30	6.00	5.80	6.00	6.30	5.75	65.2
21	7.00	7.95	8.40	7.30	6.00	5.00	4.70	4.30	4.85	5.30	5.60	5.25	6.14	65.3
22	4.95	5.10	5.15	5.10	4.80	4.50	3.60	4.20	3.60	3.80	4.90	5.70	4.62	65.0
23	5.80	5.80	5.50	5.40	4.85	4.20	4.50	3.40	3.50	3.80	4.80	5.50	4.75	66.5
24	5.70	6.30	6.65	6.00	5.15	4.00	2.90	2.80	3.10	3.30	3.70	4.40	4.50	67.5
25	4.80	5.00	5.30	4.60	3.40	2.30	1.60	1.10	1.20	0.80	1.70	2.10	2.83	69.0
26	4.45	5.10	5.60	4.50	3.00	2.05	0.70	0.50	0.10	0.35	1.20	1.95	2.46	72.5
27	2.40	2.75	3.55	2.60	1.50	1.00	0.30	0.00	0.50 "	1.00 *	2.00 *	3.50 *	1.68	73.5
28	4.30 *	5.00 *	6.10 *	5.00 *	3.50 *	1.50 *	2.00	2.30	2.00	3.20	5.10	6.10	3.84	74.0
29	6.70	7.00	7.60	6.40	5.70	5.00	4.00	3.40	2.60	2.20	3.80	5.30	4.98	70.0
30	6.00	6.00	5.95	5.60	4.40	2.95	2.10	2.80	3.40	4.10	5.90	6.00	4.60	68.7
Mean	6.03	6.39	6.61	6.01	5.08	4.22	3.57	3.29	3.22	3.54	4.61	5.38	4.83	66.8
F°	52.1	50.4	49.4	52.2	56.4	60.4	63.4	64.7	65.0	63.5	58.7	55.0	57.6	

June 27 16^h to 28 12^h the picture very faint; the numbers given have been interpolated from eye observations.

HYGROGRAPH.

JUNE, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	7.60	7.70	7.70	7.60	7.50	7.20	6.90	6.80	6.50	6.20	6.80	7.70	7.18
2	8.20	8.10	8.00	7.80	7.10	6.60	6.10	5.70	5.60	5.80	6.40	7.00	6.87
3	7.40	7.60	7.35	7.15	6.60	6.30	5.70	5.40	5.00	5.00	5.35	6.00	6.28
4	6.90	7.40	7.70	7.00	6.40	5.90	5.20	5.00	5.00	5.10	5.95	6.55	6.18
5	7.20	7.90	7.90	7.90	7.50	7.00	6.80	6.65	6.70	6.40	6.80	7.60	7.20
6	7.50	7.60	7.80	7.40	7.20	6.90	6.40	6.50	6.10	5.60	6.10	6.50	6.80
7	7.10	7.20	7.15	6.95	6.25	5.80	5.50	5.20	5.60	5.30	5.30	5.90	6.10
8	6.20	5.90	5.80	5.50	4.90	4.55	4.90	4.70	4.50	4.70	5.00	5.20	5.15
9	5.40	5.35	5.55	5.40	5.20	5.00	4.90	4.70	4.90	5.00	5.20	5.50	5.18
10	6.20	7.00	7.60	7.20	6.50	6.00	5.80	5.45	5.00	5.30	5.90	6.60	6.21
11	7.10	7.40	7.70	6.90	6.30	5.80	5.30	4.95	5.50	6.00	6.80	6.90	6.39
12	7.30	7.10	7.00	6.80	6.10	5.80	5.80	5.60	5.45	5.50	5.50	5.45	6.12
13	5.50	5.50	5.55	5.50	5.20	4.80	4.90	4.75	5.20	5.40	5.60	5.70	5.30
14	5.80	6.55	7.00	7.10	7.10	6.40	6.40	6.40	6.90	6.80	7.40	7.60	6.79
15	7.80	8.00	8.10	7.40	7.10	6.70	6.60	6.50	6.10	6.00	6.00	6.30	6.88
16	6.50	7.30	8.00	8.10	7.40	6.80	6.40	6.00	5.60	5.75	6.10	6.60	6.71
17	7.00	7.30	7.10	6.90	6.20	5.60	5.30	4.80	5.70	6.00	6.40	6.90	6.27
18	7.40	7.90	8.20	7.50	6.60	6.20	6.00	5.80	6.35	6.60	6.80	7.00	6.86
19	7.00	7.00	7.20	6.95	6.40	6.10	5.80	5.00	5.10	5.50	5.80	6.00	6.15
20	6.50	6.60	6.55	6.30	6.20	5.65	6.10	6.15	6.70	6.70	6.80	7.00	6.44
21	7.70	8.20	8.50	7.70	6.80	6.60	6.40	6.00	5.95	6.00	6.00	5.60	6.79
22	5.40	5.70	5.60	5.75	5.60	5.50	5.20	5.45	4.95	5.10	5.55	6.00	5.48
23	6.20	6.25	6.15	6.20	5.90	5.70	5.80	5.20	5.50	5.10	5.55	5.90	5.79
24	6.00	6.50	6.80	6.50	5.90	5.00	4.30	4.30	4.50	4.50	4.60	5.00	5.33
25	5.20	5.40	5.65	5.30	4.60	4.05	3.60	3.40	3.40	3.50	3.50	4.60	4.35
26	5.50	5.70	6.00	4.60	4.30	3.75	3.10	3.00	2.80	2.40	2.40	2.70	3.85
27	3.10	3.30	4.00	3.65	3.10	3.30	3.10	3.10	.....	.....	.....	.....	3.16
28	.....	.....	.....	.....	.....	.....	.....	4.80	5.00	6.00	6.90	7.20	6.28
29	7.30	7.50	8.00	7.20	6.60	6.50	6.10	5.80	5.30	5.10	5.40	5.90	6.39
30	6.50	6.50	6.50	6.20	5.60	5.50	4.80	5.10	5.10	5.30	6.30	7.70	5.93
Mean	6.57	6.81	6.99	6.64	6.14	5.76	5.49	5.27	5.38	5.44	5.80	6.23	6.01
F°	51.5	50.4	49.4	51.1	53.4	55.2	56.4	57.5	56.8	56.7	55.0	53.1	54.0

June 27—28. 14^b—14^h. The picture illegible; — 0.17 and + 0.30 Div. applied, respectively, to the means of the recorded readings.

THERMOGRAPH.

JULY, 1856

Day.	o h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	6.40	7.30	7.80	7.30	6.40	5.80	4.80	4.20	3.70	3.30	5.00	6.50	5.71	68.0
2	7.20	8.15	8.40	7.20	5.40	4.60	4.20	3.60	3.60	3.20	4.85	6.40	5.57	66.0
3	7.15	7.60	7.60	7.10	5.80	4.60	3.60	3.30	2.80	2.80	4.10	4.80	5.10	67.5
4	6.00	6.50	6.95	6.40	4.90	3.60	2.40	2.00	1.70	3.40	4.45	5.15	4.45	68.8
5	5.50	5.90	6.00	5.30	4.50	3.60	2.70	2.30	2.00	1.70	3.40	4.10	3.92	71.2
6	4.70	4.90	5.40	5.20	4.30	3.30	2.50	2.50	3.10	4.20	4.90	5.10	4.18	70.5
7	5.20	5.35	5.35	5.10	5.05	5.00	4.90	3.90	4.15	4.20	4.60	5.00	4.82	71.0
8	6.40	6.70	6.70	7.00	7.10	7.80	7.05	5.90	5.60	5.90	6.15	7.00	6.61	67.3
9	7.15	7.40	7.90	7.40	6.30	5.40	4.90	4.20	4.50	4.10	5.30	6.20	5.99	64.0
10	7.10	7.40	7.70	6.60	5.45	4.30	3.80	3.20	2.70	3.40	4.50	5.40	5.15	65.0
11	5.40	5.50	5.50	5.20	4.80	4.10	3.15	2.60	2.50	3.50	4.10	4.30	4.22	65.0
12	4.40	4.20	4.50	4.20	4.00	3.50	2.90	3.30	3.00	3.50	4.30	4.60	3.87	67.3
13	5.50	6.10	6.10	5.80	5.00	4.30	3.65	2.80	3.30	3.50	4.60	5.10	4.65	67.0
14	5.30	5.55	5.80	5.20	4.10	3.70	3.10	3.00	3.20	2.70	3.70	4.50	4.15	68.5
15	4.80	4.60	4.80	4.40	3.80	2.80	2.00	2.00	1.60	2.10	3.20	4.10	3.35	69.0
16	4.90	4.70	4.60	4.80	5.10	5.00	4.80	3.90	4.00	4.00	5.30	5.80	4.74	69.8
17	6.20	6.80	7.00	6.20	5.00	4.20	3.60	3.10	3.80	3.60	5.20	5.85	5.04	69.0
18	6.00	6.00	5.80	5.45	4.80	4.40	4.00	2.60	2.60	2.60	4.40	5.30	4.50	68.7
19	5.60	5.30	5.20	4.80	4.00	2.70	2.70	1.80	1.50	1.50	2.70	3.40	3.43	68.5
20	3.60	3.60	3.60	3.30	3.00	2.50	1.80	2.00	2.10	2.90	3.30	3.70	2.95	71.0
21	3.90	4.00	4.15	3.90	3.65	2.50	1.60	1.80	1.50	1.90	2.90	2.90	2.89	72.0
22	3.20	3.40	3.60	3.45	2.70	2.00	1.50	0.70	0.50	1.40	2.20	3.00	2.30	72.5
23	4.00	4.50	4.80	4.30	3.00	1.40	0.00	0.10 "	0.85 "	0.30	1.60	2.00	2.08	73.5
24	2.90	3.60	4.40	4.00	3.60	2.30	2.05	1.55	2.10	3.10	3.80	4.10	3.12	76.5
25	4.35	4.80	5.50	5.70	4.70	3.60	2.70	2.10	2.30	2.90	4.40	5.50	4.05	73.0
26	5.80	6.30	6.40	5.70	4.50	3.40	2.60	2.10	2.40	2.50	4.30	5.20	4.27	72.5
27	6.00	6.40	6.20	5.60	4.40	3.55	4.00	3.70	3.30	3.90	4.80	4.95	4.73	72.0
28	5.10	5.10	5.20	4.80	4.30	3.20	2.20	1.30	.....	.....	.....	.....	3.75	71.5
29	.....	.....	.....	.....	.....	.....	.....	0.70	0.50	0.80	2.50	3.30	2.16	73.0
30	3.70	3.40	3.65	3.40	3.00	2.00	1.00	0.10	0.00	0.30	1.80	3.20	2.13	74.3
31	4.00	4.50	5.00	4.70	3.00	1.50	0.40	0.00	0.00	0.00	1.30	2.30	2.23	75.5
Mean	5.25	5.52	5.72	5.32	4.52	3.69	3.02	2.46	2.44	2.77	3.92	4.62	4.07	70.0
F°	55.4	54.2	53.3	55.1	58.9	64.0	65.7	68.4	68.4	66.9	61.7	58.4	60.9	

July 28—29. 14^h to 14^h. Carriage stopped; — 0.15 and + 0.60 Div. applied, respectively, to the means of the recorded readings.

HYGROGRAPH.

JULY, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	.....	.....	.....	.....	.....	7.30	7.00	6.70	6.40	6.20	6.30	7.00	7.10
2	7.50	8.10	8.30	7.50	6.50	6.30	6.10	6.10	6.00	6.00	6.30	7.20	6.83
3	7.40	7.70	7.60	7.30	6.60	6.30	6.00	5.90	5.60	5.50	5.80	6.10	6.48
4	6.50	6.80	7.10	6.70	6.10	5.60	5.20	5.00	5.00	6.00	6.40	6.50	6.08
5	6.50	6.50	6.50	6.20	6.10	5.80	5.60	5.30	5.00 *	5.05 *	5.10	5.40	5.75
6	5.50	5.55	5.90	6.00	5.80	5.30	5.00	5.30	5.10	5.80	6.00	5.90	5.60
7	5.90	5.90	6.00	5.80	5.80	5.70	5.60	5.10	5.00	5.00	5.10	5.40	5.53
8	7.00	7.00	7.30	7.30	7.40	7.70	7.30	7.00	6.30	6.50	6.60	7.40	7.06
9	7.60	7.50	8.00	7.70	7.20	6.30	6.90	6.20	.....	.....	.....	.....	7.03
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.10	6.30	6.10
11	6.20	6.30	6.20	6.00	5.40	5.20	4.60	4.40	4.70	5.10	5.40	5.50	5.42
12	5.40	5.35	5.30	5.20	4.90	4.70	4.60	4.30	4.10	4.50	5.00	5.10	4.87
13	6.00	6.60	6.80	6.40	6.10	5.60	5.30	5.10	5.00	5.30	5.60	5.80	5.80
14	5.90	6.10	6.20	5.80	5.20	4.90	4.50	4.40	4.60	4.10	4.90	5.50	5.18
15	5.60	5.40	5.60	5.40	5.10	5.00	4.70	5.00	4.60	4.80	5.00	5.40	5.13
16	5.80	5.50	5.40	5.40	5.90	6.00	6.20	6.10	6.00	6.20	6.30	6.50	5.94
17	6.80	7.20	7.35	6.90	6.50	6.30	6.00	5.80	5.70	5.60	6.30	6.65	6.43
18	6.70	6.60	6.40	6.20	5.70	5.30	5.00	4.30	4.40	4.60	5.50	6.00	5.56
19	6.00	5.90	5.90	5.50	5.10	4.40	4.10	3.70	3.60	3.70	4.00	4.20	4.69
20	4.40	4.40	4.40	4.40	4.60	4.30	4.10	4.10	3.90	4.40	4.60	4.70	4.36
21	4.70	4.80	4.90	4.90	4.70	4.25	4.10	3.60	3.80	3.60	3.80	3.80	4.25
22	4.00	4.20	4.30	4.20	4.10	3.80	4.30	3.65	3.60	3.50	3.80	4.20	3.97
23	4.80	5.10	5.30	5.00	4.30	3.60	3.00	3.30	3.40	3.70	3.60	3.70	4.07
24	4.00	4.50	5.00	5.10	4.80	4.20	4.10	3.90	4.00	4.35	4.60	5.00	4.46
25	5.20	5.50	6.10	6.30	5.80	5.50	5.30	5.30	5.10	5.40	5.90	6.20	5.63
26	6.40	6.70	6.90	6.25	5.60	5.30	5.00	4.65	4.50	4.70	5.50	6.00	5.63
27	6.50	6.70	6.50	6.00	5.30	5.00	5.00	4.70	4.60	4.90	5.20	5.20	5.47
28	5.10	5.00	5.00	4.70	4.40	3.80	3.40	3.30	.....	.....	.....	.....	4.19
29	.....	.....	.....	.....	.....	.....	.....	3.30	3.30	3.50	3.70	3.90	3.94
30	4.00	3.70	3.90	3.95	3.70	3.40	3.10	2.80	2.70	3.00	3.60	4.20	3.50
31	4.80	5.20	5.50	5.30	4.10	3.50	3.00	2.80	2.60	2.50	2.90	3.80	3.83
Mean	5.97	5.92	6.06	5.83	5.46	5.18	4.97	4.70	4.57	4.77	5.13	5.46	5.35
F ^o	53.8	54.2	53.6	54.7	56.4	57.7	58.7	60.1	60.7	59.7	58.0	56.4	57.0

July 1. 0^h—10^h. Faint picture; 0.40 Div. added to the mean of the readings, to obtain the mean of the day.

9—10. 14^h—18^h. Picture illegible; — 0.15 Div. applied to the recorded observations, of both days, to obtain the daily means.

28—29. 14^h—14^h. No picture, the paper not having been carried forward; — 0.15 and + 0.40 Div. applied respectively to the mean of the recorded readings.

THERMOGRAPH.

AUGUST, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	3.40	4.00	4.40	4.30	2.50	0.40	0.80 n	0.00 n	1.00 n	0.40 n	0.70	2.20	1.64	77.7
2	2.80	3.50	3.80	4.00	2.70	0.50	1.00 n	2.30 n	1.40 n	0.60 n	0.70	2.20	1.24	78.5
3	3.20	3.90	4.50	4.50	3.50	0.90	0.80 n	2.00 n	1.00 n	0.40 n	0.70	2.80	1.65	79.0
4	3.80	4.40	4.80	4.70	4.50	3.60	2.10	0.30	0.80 n	0.20 n	1.30	3.00	2.63	77.2
5	4.00	4.90	5.60	5.50	3.90	2.40	1.40	0.90	0.40	0.80	3.00	4.60	3.12	77.2
6	5.60	6.30	7.00	6.00	4.90	4.10	2.90	2.00	1.30	1.20	3.50	4.60	4.12	75.2
7	5.50	6.00	6.60	6.30	4.40	2.30	1.00	0.30	0.80 n	0.10	2.30	3.40	3.12	74.0
8	4.00	4.60	5.50	4.80	3.60	2.10	2.30	1.90	1.30	1.30	3.00	3.80	3.17	76.0
9	4.20	4.10	4.20	4.00	3.70	3.40	3.00	1.30	0.90	1.60	2.40	3.10	2.99	75.5
10	3.30	3.20	4.00	3.80	2.40	1.60	0.80	0.00	0.80 n	0.10	1.70	2.30	1.87	75.0
11	2.40	3.00	3.75	3.40	2.60	1.60	0.20	0.00	0.60	1.50	2.80	3.33	2.10	76.5
12	3.80	4.20	4.50	3.90	3.10	1.90	1.00	0.55	1.30	1.80	3.30	3.90	2.77	76.0
13	4.40	4.50	4.10	4.00	3.10	1.90	0.50	0.10	0.60	1.20	2.80	3.50	2.56	75.7
14	3.80	3.70	3.90	4.00	3.50	2.70	2.20	1.50	2.50	2.80	3.80	4.30	3.23	75.5
15	4.60	4.60	4.90	4.70	3.60	3.00	2.50	2.40	2.80	3.50	4.40	5.10	3.84	75.0
16	5.70	6.30	6.90	7.00	5.60	3.50	2.40	1.70	2.20	2.70	3.40	4.10	4.29	72.5
17	4.70	4.80	4.90	4.90	4.60	4.70	5.00	5.30	5.30	5.70	5.90	6.00	5.15	72.5
18	6.00	6.10	6.30	6.20	5.90	5.80	5.30	5.00	4.70	4.90	5.50	5.60	5.61	69.5
19	5.65	5.80	5.80	5.60	5.20	4.70	4.20	4.30	4.80	4.90	5.30	5.40	5.14	67.5
20	5.50	5.60	5.60	5.50	5.10	4.50	4.10	4.00	4.40	4.80	5.00	4.80	4.91	67.7
21	4.80	4.80	4.60	4.70	4.60	4.10	3.60	4.00	3.50	4.00	4.40	4.85	4.33	66.2
22	5.60	5.50	5.90	5.60	4.60	4.80	4.80	4.70	4.30	4.90	6.00	6.70	5.28	66.5
23	7.30	7.40	7.90	8.40	6.60	5.90	4.70	4.40	4.50	4.60	5.20	5.50	6.02	66.5
24	5.80	6.10	6.40	6.20	5.10	4.20	4.40	3.70	3.80	3.80	4.00	4.40	4.83	69.0
25	4.40	4.50	5.00	4.90	4.20	3.80	3.60	3.60	3.50	3.60	3.65	3.60	4.03	67.0
26	4.00	4.90	5.40	5.80	4.70	4.20	3.80	3.40	3.50	4.00	4.80	4.85	4.45	69.0
27	5.10	4.90	4.40	3.90	3.60	2.80	2.00	2.10	3.00	3.60	4.30	4.60	3.69	68.5
28	5.00	5.30	5.70	5.80	5.10	4.20	3.40	3.20	3.60	3.30	3.70	3.90	4.35	70.5
29	4.20	4.80	5.30	5.00	4.20	3.50	3.00	2.80	2.80	3.30	4.40	5.80	4.09	70.0
30	6.10	6.20	6.90	7.00	5.80	4.40	3.10	2.90	3.20	3.70	4.20	4.60	4.84	69.0
31	4.60	4.80	4.60	5.00	4.70	3.80	3.10	2.90	3.00	3.60	4.60	4.80	4.12	70.0
Mean	4.62	4.93	5.26	5.14	4.25	3.27	2.50	2.10	2.13	2.57	3.57	4.25	3.72	72.4
F°	58.3	56.9	55.3	55.8	60.0	64.5	68.0	69.9	69.8	67.7	63.1	60.0	62.7	

HYGROGRAPH.

AUGUST, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	4.50	4.80	5.10	5.00	4.00	2.80	2.70	2.70	2.90	2.90	3.50	3.90	3.73
2	4.30	4.60	4.80	4.90	3.50	2.60	2.50	2.60	2.70	2.70	3.20	4.00	3.53
3	4.50	4.90	5.10	5.10	4.50	3.10	3.10	3.00	3.00	3.00	3.50	4.10	3.91
4	4.60	5.00	5.20	5.30	5.20	4.70	4.10	3.05	3.00	3.10	3.30	4.20	4.23
5	4.70	5.30	5.80	5.80	5.10	5.10	4.30	4.00	4.00	3.90	5.20	5.20	4.87
6	5.80	6.40	7.00	6.10	5.20	5.40	5.10	5.10	4.70	4.50	5.10	5.50	5.49
7	6.10	6.50	7.00	7.00	5.80	4.80	4.80	4.10	4.00	3.70	4.30	5.00	5.26
8	5.40	5.70	6.20	6.00	5.30	5.00	4.70	4.20	4.00	3.90	4.40	4.75	4.96
9	5.00	4.95	5.00	4.80	4.50	4.20	3.90	2.80	3.00	3.30	3.80	4.40	4.13
10	4.40	4.40	4.60	4.70	4.00	3.80	3.10	2.70	2.30	2.60	3.00	3.30	3.58
11	3.30	3.70	4.50	4.40	4.00	3.60	3.00	2.80	3.00	3.50	4.10	4.40	3.69
12	4.70	5.00	5.20	4.70	4.30	3.90	3.90	3.80	3.70	3.80	4.40	4.70	4.34
13	5.00	5.00	5.00	4.85	4.40	4.00	3.40	3.60	3.70	4.00	4.60	4.60	4.35
14	4.70	4.40	4.50	4.60	4.70	4.80	4.65	4.50	4.40	4.60	4.90	5.20	4.66
15	5.40	5.40	5.50	5.40	4.90	4.60	4.40	4.65	4.80	5.10	5.50	5.80	5.12
16	6.20	6.60	7.20	7.30	6.20	5.40	5.20	4.60	4.80	4.70	5.00	5.60	5.73
17	5.80	5.70	5.50	5.50	5.40	5.30	5.40	5.70	5.70	6.00	6.20	6.40	5.72
18	6.40	6.55	6.60	6.70	6.60	6.55	6.40	6.40	6.40	6.25	6.30	6.30	6.45
19	6.30	6.20	6.15	6.10	5.90	5.50	5.40	5.50	5.50	5.70	5.90	5.90	5.84
20	5.90	6.00	6.00	6.00	5.70	5.30	5.00	5.00	5.20	5.60	5.70	5.40	5.57
21	5.40	5.30	5.15	5.20	5.20	5.00	4.70	4.90	4.60	4.90	5.20	5.50	5.10
22	6.00	5.90	6.20	6.00	5.40	5.40	5.80	6.00	6.10	6.30	6.90	7.40	6.12
23	7.70	7.80	8.20	8.30	7.20	7.00	6.30	6.00	6.00	6.00	6.10	6.20	6.90
24	6.50	6.60	6.70	6.60	5.90	5.30	5.00	4.80	4.70	4.70	4.90	5.10	5.57
25	5.10	5.20	5.50	5.40	5.00	4.80	4.50	4.70	4.50	4.40	4.40	4.30	4.82
26	4.70	5.70	6.10	6.70	6.30	6.20	5.90	5.80	5.60	5.70	5.70	5.70	5.84
27	5.80	5.60	5.00	4.70	4.60	4.10	4.20	4.20	4.90	5.30	5.50	5.70	4.97
28	6.20	6.20	6.40	6.50	6.20	5.30	4.70	4.50	4.20	4.20	4.50	4.70	5.30
29	4.80	5.80	6.00	5.70	5.30	5.20	5.00	5.00	4.90	5.10	5.80	6.40	5.42
30	6.60	6.70	7.10	7.30	6.70	6.00	5.20	4.90	5.00	5.10	5.40	5.50	5.96
31	5.35	5.40	5.40	5.60	5.60	5.60	5.40	5.20	5.10	5.30	5.70	6.20	5.49
Mean	5.39	5.59	5.80	5.75	5.25	4.85	4.57	4.41	4.40	4.52	4.90	5.20	5.05
F°	56.7	55.8	54.8	56.0	57.4	59.3	60.7	61.6	61.6	60.9	59.0	58.0	58.4

THERMOGRAPH.

SEPTEMBER, 1856.

Day.	o h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	6.00	6.50	7.50	7.90	6.60	5.30	4.50	4.00	3.90	5.00	6.10	6.30	5.80	69.5
2	6.60	6.90	6.70	6.40	6.00	5.40	4.70	4.20	4.20	4.60	6.10	7.30	5.76	68.0
3	7.80	8.40	8.30	8.30	6.80	5.20	4.20	3.40	3.10	3.90	5.50	6.30	5.93	67.0
4	7.00	7.30	8.00	8.30	6.00	4.20	3.20	2.90	3.00	4.00	5.50	6.30	5.48	67.0
5	7.30	8.00	8.60	8.70	6.60	4.40	3.70	3.60	3.70	4.80	6.00	7.00	6.03	66.5
6	7.40	7.10	7.60	6.90	5.60	4.40	4.20	3.70	3.60	4.40	4.90	5.25	5.42	65.0
7	5.60	5.85	6.00	6.10	5.70	4.70	4.80	4.40	3.60	4.20	4.70	5.50	5.10	66.5
8	6.30	7.00	7.40	7.80	6.80	5.00	3.30	2.90	2.90	4.50	5.20	5.80	5.41	68.5
9	6.60	7.20	7.60	8.00	7.40	4.50	3.20	2.50	3.00	3.70	4.10	4.20	5.18	68.2
10	4.50	5.15	5.60	5.70	4.80	3.50	2.20	2.00	1.70	2.60	3.50	4.30	3.80	68.8
11	4.80	4.80	4.90	5.00	4.70	3.70	3.30	3.00	3.20	4.40	4.90	5.20	4.33	70.8
12	5.70	5.80	5.70	5.90	5.00	4.40	3.70	3.50	3.60	4.50	5.10	5.70	4.88	71.2
13	5.50	5.70	5.80	6.00	5.75	4.70	4.60	4.50	5.40	5.20	6.60	6.80	5.55	70.3
14	7.40	7.90	8.20	8.40	7.10	5.65	5.00	4.30	4.20	5.10	6.60	6.80	6.39	68.5
15	7.00	6.60	6.70	5.90	5.10	4.50	3.50	3.20	3.70	4.50	5.10	4.90	5.06	68.3
16	4.50	4.60	5.10	5.50	5.30	4.70	4.10	3.90	3.80	4.40	5.60	6.40	4.83	68.5
17	6.60	6.50	5.90	5.70	5.00	4.50	3.40	3.40	3.50	4.30	4.40	4.20	4.78	68.7
18	4.50	5.50	6.20	6.40	6.10	5.40	5.20	5.00	4.80	5.70	6.00	6.45	5.60	69.7
19	7.10	7.30	8.10	8.70	7.80	6.50	5.80	5.50	5.80	6.30	7.40	7.30	6.97	67.5
20	7.30	8.10	8.50	8.70	8.00	7.00	6.30	6.30	6.20	6.70	7.40	7.40	7.33	65.5
21	7.30	7.50	8.70	8.90	8.20	6.30	5.20	5.10	5.25	5.90	6.00	6.10	6.70	64.0
22	6.60	6.80	6.95	7.00	6.20	5.00	4.60	4.45	5.60	6.00	6.50	6.60	6.03	64.5
23	6.50	6.30	6.50	6.70	6.00	6.40	6.00	5.70	5.60	6.00	6.40	6.45	6.21	63.5
24	6.50	6.70	6.70	6.95	6.40	5.30	4.20	4.35	5.10	6.20	6.40	6.90	5.98	62.5
25	7.10	7.30	7.60	7.50	6.70	5.50	5.10	5.00	6.30	6.60	6.50	6.60	6.48	63.0
26	7.15	7.50	7.80	8.40	7.50	6.20	5.80	5.10	5.60	6.10	6.30	6.20	6.64	63.5
27	5.80	5.60	5.65	5.90	5.90	5.90	6.40	6.00	6.00	6.40	6.70	7.00	6.10	63.5
28	6.90	6.80	6.40	6.70	6.60	6.30	6.10	6.00	6.05	6.30	6.30	6.30	6.40	62.5
29	6.40	6.40	6.40	6.50	6.10	6.00	5.50	4.75	5.40	5.85	6.00	6.50	5.98	64.0
30	6.20	6.30	6.30	6.20	5.95	5.35	5.10	4.80	4.60	5.70	6.80	7.40	5.89	64.0
Mean	6.40	6.65	6.91	7.03	6.26	5.20	4.56	4.25	4.41	5.13	5.82	6.18	5.73	66.6
F°	51.3	50.1	49.0	48.3	52.0	56.8	59.9	61.2	60.6	57.1	54.0	52.3	54.4	

HYGROGRAPH.

SEPTEMBER, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	6.70	7.00	7.70	8.00	7.30	6.80	6.60	6.10	6.00	6.50	7.00	7.20	6.91
2	7.10	7.30	7.20	7.00	6.70	6.80	6.80	6.70	6.60	6.50	6.80	7.50	6.92
3	8.00	8.50	8.40	8.50	7.60	6.70	6.20	5.85	5.50	5.40	6.00	6.60	6.94
4	6.70	7.20	8.00	8.40	6.20	5.50	5.20	5.00	5.30	5.80	6.70	7.00	6.42
5	7.50	8.10	8.70	8.70	7.00	6.20	6.20	6.10	6.20	6.60	7.20	7.70	7.18
6	7.90	7.50	7.80	7.20	6.40	5.90	6.10	5.70	4.40	4.90	5.30	5.60	6.23
7	6.00	6.20	6.50	6.50	6.20	6.00	5.40	5.20	4.40	4.90	5.20	5.80	5.69
8	6.80	7.30	7.70	8.00	7.20	6.10	5.40	5.10	5.00	5.40	5.80	6.10	6.33
9	6.80	7.20	7.60	8.00	7.30	5.40	5.20	4.70	4.70	5.00	5.10	5.00	6.00
10	5.30	5.70	6.00	6.00	5.30	4.60	4.00	3.90	4.00	4.00	4.50	4.90	4.85
11	5.20	5.10	5.40	5.50	5.30	5.00	4.90	4.80	5.00	5.50	5.70	6.00	5.28
12	6.30	6.30	6.20	6.30	5.90	5.70	5.50	5.30	5.40	5.60	5.80	6.10	5.87
13	6.00	6.10	6.30	6.50	6.40	6.10	5.90	6.20	6.10	6.30	7.00	7.20	6.34
14	7.50	7.85	8.20	8.40	7.50	7.00	6.90	6.40	6.00	6.00	6.90	7.10	7.15
15	7.10	6.70	6.70	6.10	5.60	5.30	4.50	4.20	5.60	6.00	6.00	5.50	5.78
16	5.10	5.10	6.40	6.50	6.60	6.40	6.00	6.00	6.00	6.00	6.50	6.90	6.13
17	6.90	6.80	6.50	6.40	6.00	6.00	5.10	5.10	5.00	5.20	5.20	5.00	5.77
18	5.00	5.80	6.50	6.70	6.60	6.90	7.10	7.00	6.90	7.00	7.20	7.50	6.68
19	7.50	7.70	8.30	8.60	8.10	7.70	7.40	7.10	6.90	7.00	7.60	7.50	7.62
20	7.50	8.20	8.50	8.80	8.50	8.10	7.80	7.70	7.50	7.60	7.90	7.90	8.00
21	7.80	7.90	8.70	8.90	8.30	7.20	6.80	6.60	6.60	6.60	6.40	6.30	7.34
22	6.70	7.00	7.10	7.10	6.60	6.00	5.80	5.80	6.00	6.50	6.80	6.90	6.53
23	6.90	6.80	6.90	7.10	6.50	6.70	6.60	6.40	6.20	6.50	6.60	6.70	6.66
24	6.70	6.90	6.90	7.10	6.70	6.20	6.00	5.20	5.40	6.30	6.60	7.00	6.42
25	7.40	7.50	7.70	7.50	7.00	6.40	6.20	6.20	6.70	6.90	6.90	7.00	6.95
26	7.30	7.60	7.80	8.30	7.60	6.90	6.90	6.50	6.40	6.50	6.70	6.60	7.09
27	6.30	6.20	6.10	6.20	6.30	6.30	6.70	6.50	6.50	6.70	6.90	7.10	6.50
28	7.00	6.80	6.40	6.80	6.80	6.60	6.30	6.20	6.30	6.40	6.50	6.50	6.55
29	6.50	6.50	6.50	6.60	6.50	6.50	6.30	6.00	6.40	6.50	6.60	6.80	6.48
30	6.50	6.50	6.50	6.50	6.40	6.40	6.10	6.00	6.10	6.60	7.00	7.50	6.51
Mean	6.73	6.91	7.17	7.27	6.75	6.31	6.06	5.85	5.84	6.09	6.41	6.62	6.50
F°	50.3	49.5	48.2	47.6	50.2	52.3	53.4	54.6	54.6	53.2	51.8	50.8	51.6

THERMOGRAPH.

OCTOBER, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	8.00	7.50	7.50	7.90	7.00	5.60	.....	.....	.....	.....	.....	.....	6.75	...
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...
3	6.30	6.20	6.00	6.00	5.15	4.50	4.25	4.40	4.50	4.90	5.20	5.00	5.20	...
4	5.20	5.20	5.00	4.90	4.70	4.20	3.70	4.05	4.70	5.30	5.60	5.80	4.86	...
5	5.80	5.65	5.70	5.60	5.20	4.60	4.30	4.50	4.60	5.30	5.80	6.50	5.30	...
6	7.00	7.70	8.20	8.50	7.90	7.40	6.60	6.30	5.80	5.70	5.60	5.60	6.86	...
7	5.80	6.00	6.20	6.30	6.45	6.30	6.10	6.00	6.20	6.15	6.30	6.20	6.18	...
8	6.30	6.50	6.50	6.50	6.60	6.80	6.80	6.40	6.40	6.50	6.60	6.70	6.55	...
9	6.90	7.20	7.60	7.70	7.40	6.60	5.90	5.70	5.90	6.30	6.50	6.60	6.69	...
10	6.80	6.75	6.70	6.80	6.50	6.00	6.00	5.80	5.90	6.60	7.60	7.20	6.56	...
11	7.20	6.90	6.90	6.60	6.25	6.10	5.80	5.40	5.30	5.45	5.50	5.60	6.08	...
12	5.80	5.85	5.90	5.90	5.90	5.40	5.00	4.65	4.60	6.40	7.10	7.30	5.82	...
13	7.50	7.50	.....	.....	7.50	6.80	6.00	.....	.....	.....	6.60	6.40	6.79	...
14	6.00	6.10	6.10	6.40	6.10	5.90	5.60	5.40	5.20	5.80	6.00	5.80	5.87	...
15	5.50	6.70	6.60	6.70	6.50	6.10	6.00	6.40	6.10	6.25	6.30	6.50	6.30	...
16	6.40	6.40	7.00	7.80	7.40	6.00	4.90	4.90	5.10	6.00	5.70	6.50	6.18	...
17	7.10	7.60	7.70	8.20	7.50	6.60	5.80	5.85	5.60	6.85	7.10	7.00	6.91	...
18	6.80	6.80	6.90	7.10	6.80	6.20	5.90	5.80	5.80	5.80	8.30	8.70	6.74	...
19	9.30	9.60	9.30	9.50	9.50	8.90	6.90	5.15	5.40	6.50	6.90	6.70	7.80	...
20	6.70	6.70	6.40	6.50	6.30	5.85	5.40	5.10	5.20	5.70	6.10	6.60	6.05	...
21	6.70	6.70	6.80	6.80	6.60	5.80	5.30	4.70	5.00	6.50	7.30	8.00	6.35	...
22	8.40	8.40	8.80	9.40	9.20	5.60	4.80	3.90	4.10	5.30	5.50	5.80	6.60	...
23	5.95	6.60	6.80	6.50	6.40	6.50	6.20	5.80	6.10	6.70	7.00	7.40	6.50	...
24	6.50	6.30	6.20	6.25	6.40	6.00	5.70	5.90	6.10	7.20	8.30	9.00	6.65	...
25	9.20	8.10	7.80	7.80	7.35	6.70	6.30	6.40	6.80	8.10	9.70	9.50	7.81	...
26	9.80	9.80	9.75	9.90	9.70	8.40	7.00	6.80	7.00	8.25	8.40	9.20	8.67	...
27	9.45	10.10	9.70	9.40	9.10	7.80	6.90	6.60	6.90	9.00	8.60	9.60	8.60	...
28	10.30	10.60	10.50	10.10	9.70	8.40	7.30	7.20	7.40	9.00	10.00	10.60	9.26	...
29	11.20	11.40	11.70	11.60	11.60	11.00	9.90	8.60	8.80	9.00	9.60	9.60	10.33	...
30	9.60	9.50	9.25	9.10	8.20	7.10	6.10	6.00	6.20	6.40	7.20	7.00	7.64	...
31	6.80	6.60	6.60	6.55	6.25	5.90	5.30	4.80	5.70	6.75	7.30	7.10	6.30	...
Mean	7.34	7.43	7.45	7.53	7.24	6.32	5.92	5.66	5.77	6.52	7.00	7.20	6.80	
F°	48.1	47.8	47.7	47.4	48.5	50.3	53.9	55.2	54.8	51.7	49.5	48.7	50.3	

October 1—2. The position of the Instrument changed; 0.50 Div. subtracted from the mean of the observations to obtain the mean of the day, on October 1.

13. The picture faint where the readings are omitted; 0.11 Div. subtracted from the mean of the observations.

HYGROGRAPH.

OCTOBER, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	8.00	7.60	7.70	7.80	7.10	6.40	.....	.....	.....	.....	.....	.....	7.18
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	6.60	6.50	6.30	6.20	5.80	5.50	5.20	5.40	5.30	5.60	5.80	5.70	5.83
4	5.80	5.60	5.40	5.30	5.30	5.00	5.00	5.20	5.60	6.10	6.00	6.10	5.53
5	6.10	5.95	6.00	6.00	5.70	5.40	5.40	5.30	5.50	5.80	6.20	6.80	5.85
6	7.10	7.70	8.20	8.40	8.00	7.50	6.90	6.70	6.40	6.20	6.10	6.10	7.11
7	6.20	6.40	6.60	6.60	6.80	6.60	6.40	6.40	6.50	6.60	6.60	6.60	6.53
8	6.70	6.80	6.80	6.80	6.80	6.90	6.90	6.90	6.90	7.00	7.10	7.20	6.90
9	7.40	7.60	7.90	7.80	7.60	7.20	6.90	6.80	6.80	6.90	7.00	7.00	7.24
10	7.10	7.00	6.95	7.00	6.95	6.60	6.60	6.60	6.50	6.90	7.60	7.30	6.93
11	7.40	7.00	7.10	6.90	6.65	6.50	6.20	5.90	5.80	6.00	6.00	6.00	6.45
12	6.10	6.10	6.10	6.10	6.10	5.70	5.50	5.40	5.60	6.60	7.00	7.70	6.17
13	8.30	8.50	9.00	9.30	8.30	6.90	6.40	6.00	.....	.....	6.80	6.50	7.50
14	6.20	6.40	6.50	6.65	6.60	6.30	6.20	6.20	6.00	6.30	6.30	6.20	6.32
15	6.00	7.00	7.00	7.20	7.00	6.90	6.70	6.70	7.00	7.00	7.00	7.20	6.89
16	7.00	7.20	7.80	8.10	7.60	6.50	6.10	6.20	6.30	6.50	6.50	6.80	6.88
17	7.20	7.60	7.70	8.10	7.50	6.90	6.60	6.70	6.65	7.20	7.40	7.25	7.23
18	7.05	7.15	7.30	7.30	7.10	6.80	6.70	6.65	6.60	7.00	8.10	8.50	7.19
19	9.00	9.20	9.50	9.60	9.50	8.60	7.00	6.05	6.00	6.70	6.90	6.80	7.90
20	6.90	6.85	6.70	6.70	6.70	6.40	6.30	6.10	6.05	6.30	6.90	7.00	6.58
21	6.90	6.90	6.90	6.90	6.70	6.30	6.00	5.90	5.90	6.70	7.30	7.90	6.69
22	8.20	8.25	8.40	8.90	8.80	6.20	5.80	5.10	5.25	5.90	6.00	6.10	6.91
23	6.20	6.60	6.70	6.60	6.50	6.60	6.40	6.10	6.25	6.70	7.00	7.40	6.59
24	6.70	6.40	6.45	6.40	6.70	6.70	6.90	7.00	7.20	7.80	8.45	9.00	7.14
25	9.00	8.30	8.00	8.00	7.80	7.40	7.60	7.60	7.70	8.40	9.40	9.30	8.21
26	9.60	9.55	9.50	9.50	9.40	8.40	7.60	7.70	7.60	8.30	8.50	9.00	8.72
27	9.20	9.70	9.50	9.20	9.00	8.20	7.70	7.50	7.60	9.00	8.60	9.20	8.70
28	9.50	10.10	10.00	9.60	9.40	8.45	7.65	7.80	7.85	8.80	9.60	10.10	9.07
29	10.60	10.80	11.00	11.00	10.90	10.40	9.50	8.50	8.60	8.70	9.20	9.25	9.87
30	9.20	9.15	8.95	8.80	8.10	7.20	6.70	6.60	6.60	6.70	7.30	7.20	7.71
31	7.00	6.80	6.70	6.65	6.40	6.10	5.70	5.70	6.30	6.90	7.35	7.40	6.58
Mean	7.47	7.56	7.62	7.65	7.43	6.67	6.57	6.44	6.50	6.95	7.10	7.40	7.15
F°	47.3	47.0	46.7	46.5	47.6	51.1	51.6	52.2	52.0	50.1	49.1	47.7	48.8

October 1—2. The position of the Instrument changed; — 0.25 applied to the mean recorded readings on October 1.

13. 16^h—18^h. The hulk of the Instrument covered, to protect it while workmen were employed in the neighbourhood. Daily mean = Mean of the readings — 0.10 Div.

THERMOGRAPH.

NOVEMBER, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	8.00	8.50	7.90	7.80	7.50	7.00	6.20	6.60	6.70	6.90	7.10	7.10	7.28	...
2	7.20	7.20	7.50	8.00	8.40	8.50	7.90	7.25	7.60	8.80	9.40	8.70	8.04	...
3	8.40	8.40	8.30	8.10	8.00	7.60	7.10	6.80	6.80	7.30	7.70	8.00	7.71	...
4	8.20	8.70	8.50	8.80	8.60	8.10	7.20	6.70	7.45	8.20	9.50	9.60	8.30	...
5	9.00	8.80	8.40	8.35	8.35	7.80	7.80	7.30	7.50	9.50	10.00	10.50	8.61	...
6	11.10	10.90	11.10	11.60	11.60	10.40	8.80	8.40	8.80	10.10	10.70	11.00	10.38	...
7	10.80	10.70	10.30	10.10	9.80	8.60	7.75	7.45	7.60	8.50	8.50	8.80	9.08	...
8	9.10	9.10	9.15	9.20	9.30	8.90	8.50	8.20	8.30	8.40	8.50	8.75	8.78	...
9	8.95	9.40	9.80	9.90	10.70	9.50	7.80	7.60	7.80	8.00	7.60	8.20	8.77	...
10	8.50	8.00	8.60	9.00	9.20	9.20	9.25	9.20	10.10	10.35	10.50	10.90	9.40	...
11	11.10	11.40	11.50	11.60	11.40	10.40	9.60	9.40	9.65	9.90	9.80	9.90	10.47	...
12	9.30	9.50	9.60	9.90	10.30	9.80	9.20	9.20	9.25	9.30	9.65	9.60	9.55	...
13	9.60	9.60	10.40	10.40	10.20	9.70	8.80	8.60	8.90	9.20	9.10	8.60	9.43	...
14	8.60	8.10	8.00	9.45	9.80	10.15	10.00	9.70	10.30	11.20	11.30	11.30	9.83	...
15	11.20	10.75	10.60	11.00	11.20	10.30	9.00	8.10	8.50	9.40	9.30	8.70	9.84	...
16	8.55	9.40	10.50	10.50	10.90	10.60	9.60	9.30	10.20	11.60	12.30	12.50	10.50	...
17	12.40	12.60	11.30	11.20	11.00	10.20	9.10	8.40	8.80	9.50	9.90	9.10	10.30	...
18	9.00	8.85	8.50	9.20	9.00	8.40	7.50	7.40	7.50	8.30	8.60	8.60	8.40	...
19	8.90	9.60	9.80	9.40	9.30	8.30	6.80	6.65	7.00	7.60	8.30	8.10	8.31	...
20	8.10	7.30	7.20	7.50	7.20	6.70	6.60	6.50	6.70	6.90	6.90	6.90	7.04	...
21	6.70	6.70	7.10	7.30	7.10	6.30	6.20	6.00	6.40	7.00	6.80	6.90	6.71	...
22	7.30	7.00	7.30	7.30	6.80	6.50	5.75	5.80	6.40	7.10	7.30	7.50	6.84	...
23	7.20	6.80	6.80	7.00	6.90	6.20	6.10	5.80	5.90	6.25	6.70	6.10	6.48	...
24	6.00	6.30	6.60	6.95	6.00	5.60	5.60	6.00	7.20	7.90	8.20	8.00	6.70	...
25	8.25	8.70	8.80	9.10	9.50	10.10	10.30	10.20	10.50	11.60	11.80	12.00	10.07	...
26	11.60	11.30	11.10	11.10	10.60	10.50	7.90	8.80	9.30	10.00	9.60	8.30	10.01	...
27	9.10	9.60	9.50	9.60	9.60	8.80	7.50	7.75	7.90	9.10	10.00	10.90	9.11	...
28	10.90	10.70	10.80	10.70	10.60	10.10	9.70	9.80	9.80	10.40	.....	.....	10.35	...
29	.....	.....	.....	.....	.....	11.70	10.30	10.10	11.00	12.20	12.35	12.50	11.74	...
30	12.20	12.30	12.70	12.80	12.50	11.70	11.00	10.70	11.10	11.50	11.80	12.00	11.86	...
Mean	9.15	9.18	9.23	9.41	9.35	8.92	8.16	7.99	8.36	9.07	9.28	9.28	9.00	...
F°	41.1	41.0	40.8	40.0	40.3	42.1	45.2	45.8	44.4	41.4	40.6	40.6	41.7	...

November 28. The picture indistinct, bad illumination.

29. 0^h—8^h the picture illegible; 0.3 Div. added to the mean of the observations to obtain the mean of the day.

HYGROGRAPH.

NOVEMBER, 1856.

Day.	o h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	8.10	8.20	7.70	7.70	7.50	7.10	6.60	6.90	6.90	7.00	7.20	7.20	7.34
2	7.20	7.30	7.50	7.90	8.20	8.30	7.80	7.50	7.80	8.60	9.00	8.50	7.97
3	8.30	8.20	8.10	7.90	7.90	7.70	7.50	7.30	7.30	7.50	7.85	8.00	7.80
4	8.20	8.60	8.50	8.60	8.45	8.10	7.60	7.50	7.90	8.30	9.10	9.15	8.33
5	8.70	8.50	8.20	8.20	8.10	7.90	8.10	7.70	8.00	9.50	9.80	10.20	8.58
6	10.60	10.40	10.60	11.00	11.10	10.00	9.20	9.00	9.10	9.90	10.30	10.50	10.14
7	10.30	10.30	10.00	9.85	9.50	8.70	8.10	7.80	8.05	8.65	8.70	8.80	9.06
8	9.00	8.95	9.00	9.00	9.00	8.80	8.55	8.30	8.30	8.40	8.50	8.70	8.71
9	8.85	9.20	9.60	9.65	10.20	9.20	8.10	7.70	7.80	8.00	7.95	8.20	8.70
10	8.50	8.25	8.40	8.70	8.70	9.30	9.70	9.60	9.90	10.00	10.40	10.80	9.35
11	11.00	11.20	11.30	11.25	10.90	10.20	9.70	9.55	9.80	10.10	9.80	9.70	10.38
12	9.30	9.40	9.60	10.00	10.20	9.80	9.50	9.40	9.60	9.65	9.90	9.80	9.68
13	9.70	9.80	10.30	10.30	10.10	9.90	9.50	9.50	9.30	9.30	9.10	8.70	9.63
14	8.50	8.20	8.10	9.50	9.90	10.50	10.60	10.50	10.80	11.10	11.30	11.20	10.02
15	11.20	10.80	10.80	10.90	10.80	10.20	9.20	8.70	9.00	9.40	9.10	8.60	9.89
16	8.50	9.10	10.10	10.00	10.40	10.20	9.50	9.30	9.90	10.90	11.40	11.50	10.07
17	11.60	11.80	10.80	10.60	10.40	9.80	9.00	8.45	8.80	9.20	9.50	8.90	9.90
18	8.80	8.60	8.40	8.80	8.70	8.40	7.90	7.80	7.80	8.40	8.40	8.50	8.38
19	8.80	9.20	9.40	9.00	8.90	8.20	7.40	7.30	7.60	7.90	8.40	8.10	8.35
20	8.00	7.50	7.60	7.90	7.70	7.40	7.30	7.30	7.10	7.30	7.20	6.90	7.43
21	6.90	7.00	7.40	7.45	7.30	6.80	6.70	6.50	6.80	7.10	7.10	7.10	7.01
22	7.30	7.10	7.40	7.50	7.30	7.10	6.90	6.70	7.20	7.50	7.60	7.70	7.28
23	7.40	7.10	7.00	7.20	7.10	6.70	6.70	6.70	6.60	6.80	7.10	6.60	6.92
24	6.70	6.80	7.10	7.30	6.80	6.60	7.00	7.10	8.10	8.70	8.80	8.50	7.46
25	8.70	9.20	9.10	9.00	9.60	10.50	10.90	10.70	10.80	11.00	11.00	11.00	10.13
26	10.90	10.70	10.70	10.60	10.00	9.80	7.80	8.60	9.00	9.70	9.50	8.50	9.65
27	8.85	9.20	9.20	9.30	9.20	8.50	7.70	7.80	8.00	9.20	9.60	10.00	8.88
28	10.30	10.20	10.20	10.10	10.00	9.60	9.50	9.50	9.60	10.60 *	10.75 *	10.90	10.10
29	11.10	.....	.....	.....	.....	11.20	10.10	10.10	10.70	11.00	11.20	11.50	10.87
30	11.30	11.50	11.70	12.00	11.60	10.90	10.30	10.00	10.30	10.70	11.00	11.20	11.04
Mean	9.09	9.04	9.10	9.21	9.10	8.91	8.48	8.36	8.60	9.05	9.22	9.16	8.97
F°	39.4	39.3	38.9	38.5	38.8	40.3	42.1	42.0	41.8	39.6	38.8	39.1	40.0

November 10. 10^h the muslin round the bull found to be dry. The preceding readings on this day give too high a temperature.

27. 18^h the picture faint at this part. The reading is interpolated.

28. 18^h—20^m the picture faint. The readings are interpolated from eye-observations.

THERMOGRAPH.

DECEMBER, 1856.

Day.	0 h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.	Room.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°
1	12.10	12.50	12.70	12.80	12.30	11.80	10.50	10.50	11.40	.....	.....	.....	12.24	...
2	.....	.....	.....	.....	.....	.....	.....	.....	12.30	11.90	11.90	11.40	11.96	...
3	11.00	10.80	10.90	10.80	10.90	10.60	10.60	10.80	11.00	11.70	12.50	12.50	11.18	...
4	12.50	12.90	12.80	13.00	12.70	12.10	11.40	11.20	10.90	10.70	10.40	10.00	11.72	...
5	9.80	9.70	9.50	9.40	9.10	8.30	7.70	6.50	6.50	6.75	6.50	6.30	8.00	...
6	6.40	6.50	7.10	7.60	7.50	6.70	6.00	6.00	5.65	5.50	5.30	5.30	6.30	...
7	5.20	5.10	5.20	5.00	5.00	5.00	5.30	5.40	5.65	5.70	5.70	5.70	5.33	...
8	5.80	5.90	5.10	6.10	5.80	5.80	5.60	5.80	5.60	6.10	5.95	5.80	5.78	...
9	6.30	6.20	6.25	6.20	6.00	5.90	5.60	5.40	5.50	5.90	6.00	6.10	5.95	...
10	6.20	6.10	6.20	6.30	6.65	6.50	6.40	6.20	6.60	6.80	7.20	7.30	6.54	...
11	7.50	7.60	7.80	8.00	8.50	8.00	7.50	7.40	7.70	7.70	7.80	7.80	7.78	...
12	7.50	7.90	7.90	7.90	7.80	7.70	7.00	6.80	7.60	8.00	8.20	8.40	7.73	...
13	8.80	9.10	9.40	9.00	8.70	8.40	8.00	7.60	8.10	8.20	8.50	9.00	8.57	...
14	8.60	8.85	8.90	9.05	9.15	8.90	8.30	8.20	8.10	8.40	8.60	9.10	8.68	...
15	8.70	9.40	9.80	10.40	10.60	10.30	9.70	9.50	10.10	10.50	11.00	11.30	10.11	...
16	11.80	12.10	11.90	12.60	12.60	12.00	12.60	11.00	11.40	11.50	11.60	11.70	11.90	...
17	12.10	11.50	11.40	11.40	11.00	10.60	9.70	9.20	9.40	9.60	9.90	8.70	10.38	...
18	8.90	8.50	8.50	8.50	8.40	8.10	7.90	8.00	8.00	8.10	8.20	8.20	8.28	...
19	8.80	9.50	10.10	10.40	10.70	10.30	9.90	8.70	9.20	10.10	10.20	9.60	9.79	...
20	8.80	8.80	8.60	8.90	8.60	7.90	8.00	7.80	7.90	8.10	8.20	8.20	8.32	...
21	8.40	8.30	8.20	8.10	8.20	8.10	7.90	8.35	8.40	8.30	8.40	8.60	8.27	...
22	8.40	8.40	8.30	8.50	9.20	8.80	8.10	8.00	8.30	8.30	8.30	8.20	8.40	...
23	8.30	8.60	9.00	9.60	10.50	10.30	10.20	10.10	10.50	10.90	11.20	11.00	10.02	...
24	10.90	10.60	10.60	10.40	10.10	9.70	8.90	8.70	9.70	10.10	10.00	11.00	10.06	...
25	11.70	12.00	11.60	11.30	11.50	11.30	11.00	11.00	10.90	11.40	12.00	12.50	11.52	...
26	11.90	11.20	11.00	10.90	10.90	10.75	10.70	10.60	10.70	10.80	10.90	11.00	10.95	...
27	11.50	12.00	12.50	13.00	12.70	12.20	11.40	10.70	11.60	12.50	13.20	14.00	12.28	...
28	.....	.....	.....	.....	.....	14.10	12.00	10.60	11.00	11.40	11.70	11.90	12.01	...
29	14.00	13.80	13.20	12.20	11.60	10.60	10.60	10.00	9.85	10.00	10.30	10.50	11.39	...
30	10.50	10.40	9.80	9.30	9.10	8.90	8.00	8.00	8.10	8.40	8.30	8.10	8.91	...
31	8.20	8.10	8.10	8.20	8.20	8.10	7.90	7.80	7.50	7.80	8.10	7.70	7.98	...
Mean	9.33	9.36	9.38	9.48	9.45	9.26	8.81	8.53	8.88	9.04	9.20	9.23	9.30	...
F°	40.5	40.4	40.3	39.9	40.0	40.7	42.7	43.8	42.4	41.6	41.0	40.9	40.4	

December 1. 13^h—22^h. The picture indistinct; 0.4 Div. added to the mean of the observations to obtain the mean of the day.

2. 0^h—14^h. The picture indistinct; 0.10 Div. added to the mean of the recorded observations to obtain the mean of the day.

26—27. Faint pictures.

28. 0^h—8^h. The Thermometer below the field of the picture; + 0.20 Div. applied to the mean of the day.

29. Faint picture.

HYGROGRAPH.

DECEMBER, 1856.

Day.	o h.	2 h.	4 h.	6 h.	8 h.	10 h.	12 h.	14 h.	16 h.	18 h.	20 h.	22 h.	Mean.
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.
1	11.20	11.60	11.90	12.20	11.60	11.00	9.70	9.80	10.40	11.00	11.60	12.20	11.18
2	.....	.....	.....	.....	.....	.....	.....	11.50	11.30	11.20	10.70	10.30	11.13
3	10.20	10.10	10.20	10.20	10.20	10.00	9.80	10.10	10.40	11.00	11.50	11.60	10.44
4	11.60	11.80	11.70	12.00	11.70	11.30	10.80	10.50	10.40	10.30	10.00	9.60	10.98
5	9.50	9.40	9.25	9.10	8.80	8.20	7.50	6.60	6.70	6.80	6.60	6.60	7.92
6	6.55	6.70	7.40	7.80	7.70	7.00	6.50	6.30	6.10	5.90	5.80	5.70	6.62
7	5.65	5.60	5.60	5.60	5.60	5.70	5.90	6.10	6.55	6.80	6.80	6.90	6.07
8	6.80	6.50	6.40	6.40	6.10	6.00	5.90	5.90	6.10	6.40	6.40	6.30	6.25
9	6.70	6.60	6.70	6.70	6.40	6.60	6.50	6.40	6.40	6.70	6.70	6.80	6.60
10	6.80	6.50	6.60	6.50	6.80	6.70	6.50	6.60	6.80	6.90	7.20	7.20	6.76
11	7.50	7.50	7.60	7.80	8.30	7.90	7.70	7.70	7.70	7.70	7.80	7.80	7.75
12	7.60	8.00	8.10	8.10	8.10	8.00	7.30	7.20	7.70	8.10	8.30	8.60	7.92
13	8.80	9.00	9.15	9.00	8.50	8.30	8.00	7.80	8.30	8.50	8.70	8.80	8.57
14	8.80	8.90	8.90	9.00	9.10	9.00	8.50	8.50	8.30	8.60	8.70	9.20	8.79
15	8.80	9.30	9.60	10.10	10.30	10.10	9.70	9.50	9.80	10.20	10.50	10.70	9.88
16	11.00	11.20	11.20	11.70	11.90	11.70	11.00	10.50	10.90	11.10	11.30	11.10	11.22
17	11.40	10.90	10.80	10.90	10.70	10.30	9.60	9.10	9.20	9.20	9.40	8.50	10.00
18	8.60	8.30	8.40	8.30	8.10	8.00	7.80	7.90	8.00	8.20	8.40	8.50	8.21
19	8.90	9.40	9.80	10.00	10.30	10.10	9.60	8.80	9.10	9.80	9.80	9.30	9.58
20	8.60	8.60	8.50	8.60	8.40	7.90	7.90	7.80	7.80	8.00	8.10	8.20	8.20
21	8.30	8.30	8.30	8.20	8.30	8.20	8.20	8.40	8.50	8.40	8.40	8.50	8.33
22	8.40	8.50	8.50	8.50	9.00	8.70	8.30	8.20	8.30	8.40	8.40	8.30	8.46
23	8.30	8.50	9.00	9.30	10.20	10.10	10.00	10.00	10.20	10.50	10.60	10.50	9.77
24	10.40	10.10	10.10	10.00	9.70	9.40	9.00	8.80	9.50	9.80	9.80	10.50	9.76
25	11.00	11.10	11.00	10.80	10.90	10.70	10.50	10.45	10.50	10.90	11.30	11.40	10.88
26	11.30	10.70	10.50	10.50	10.40	10.30	10.30	10.20	10.10	10.30	10.30	10.40	10.44
27	10.60	11.30	11.40	11.50	11.60	11.30	10.80	10.50	11.00	11.70	12.00	12.40	11.34
28	.....	.....	.....	.....	.....	13.10	11.50	10.10	10.50	10.70	10.60	11.20	11.25
29	11.40	11.30	10.70	10.80	10.70	10.60	10.20	10.00	9.80	9.90	10.00	10.10	10.46
30	10.00	10.00	9.40	8.90	8.70	8.50	8.00	7.80	7.90	8.20	8.20	8.10	8.64
31	8.40	8.20	8.10	8.10	8.20	8.10	7.90	7.50	7.60	8.00	8.00	7.70	7.98
Mean	9.19	9.23	9.28	9.35	9.32	9.22	8.81	8.60	8.77	9.01	9.09	9.13	9.04
F°	39.1	39.0	38.6	38.5	38.6	39.0	41.0	42.0	41.2	40.0	39.6	39.4	40.0

December 1. A faint picture, the readings from 18^h—20^h are very uncertain.

2. 0^h—12^h the picture illegible. The daily mean = mean of the recorded readings + 0.13 Div.
 28. 0^h—8^h. The Thermometer below the field of the picture; the Daily mean = Mean of recorded readings + 0.15 Div.

ANEMOGRAPH. DIRECTION.

JULY, 1856.

Day.	Hour.												Mean daily direc- tion.		
	0	2	4	6	8	10	12	14	16	18	20	22			
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°		
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	7.5	8.0	7.5	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.5	230		
17	11.0	11.0	11.0	11.0	12.0	13.0	12.5	11.5	10.5	11.0	11.0	11.0	260		
18	11.0	11.5	11.5	11.0	10.5	10.5	10.5	11.0	11.5	11.0	11.0	11.0	250		
19	11.0	11.0	11.0	11.0	11.5	11.0	11.5	11.5	11.5	12.0	12.0	10.5	260		
20	11.0	11.0	11.0	11.5	13.5	13.5	14.0	14.0	0.0	0.0	0.0	0.0	300		
21	0.0	0.0	0.0	0.0	0.0	12.5	12.0	12.0	11.5	12.0	11.5	12.0	300		
22	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	8.0	8.0	8.0	250		
23	8.0	8.0	8.0	8.0	6.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	170		
24	7.5	7.5	7.5	7.5	11.0	11.0	11.0	11.5	11.0	11.0	11.0	14.0	230		
25	14.0	14.0	14.0	14.0	12.0	11.5	11.5	11.5	11.5	11.5	11.0	11.0	280		
26	10.5	10.5	10.5	10.5	11.0	11.0	12.0	11.0	11.0	10.5	10.5	10.5	245		
27	10.5	10.5	10.5	10.5	11.0	11.0	11.5	11.0	11.5	11.0	10.5	10.5	245		
28	10.5	8.0	7.0	10.0	8.5	10.5	11.0	10.5	13.5	0.0	0.0	0.0	245		
29	0.0	0.0	0.0	0.0	0.0	12.0	12.0	11.5	11.5	11.0	11.0	11.0	300		
30	11.0	11.0	11.5	11.0	11.0	11.0	11.0	11.5	11.0	11.0	11.0	11.0	250		
31	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	15.0	15.5	15.5	15.5	280		
Mean direc- tion.	248°	242°	243°	252°	258°	254°	256°	252°	262°	256°	253°	253°	252°		
0 { N 0°	1 { NNE 22°.5	2 { NE 45°	3 { ENE 67°.5	4 { E 90°	5 { ESE 112°.5	6 { SE 135°	7 { SSE 157°.5	8 { S 180°	9 { SSW 202°.5	10 { SW 225°	11 { WSW 247°.5	12 { W 270°	13 { WNW 292°.5	14 { NW 315°	15 { NNW 337°.5

ANEMOGRAPH. VELOCITY.

JULY, 1856.

Day.	Hour.												Sum.
	0—2	2—4	4—6	6—8	8—10	10—12	12—14	14—16	16—18	18—20	20—22	22—0	
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	0.0	2.0	4.0	17.0	19.5	28.0	32.0	25.0	28.0	21.0	14.5	17.0	208.0
17	11.5	9.5	11.5	16.5	16.0	15.5	19.0	17.5	17.0	12.5	2.0	0.0	148.5
18	0.0	5.0	4.0	7.5	10.0	11.0	13.0	19.5	25.0	16.5	12.5	11.0	135.0
19	7.0	8.5	11.0	16.5	20.0	28.0	19.5	29.5	18.5	11.5	12.0	14.5	196.5
20	11.5	9.0	14.5	13.0	13.0	11.0	8.5	9.5	11.5	0.0	0.0	0.0	101.5
21	0.0	0.0	0.0	2.0	4.0	6.0	7.5	0.0	7.0	8.0	8.0	2.0	44.5
22	0.0	0.0	0.0	0.0	2.0	0.0	0.0	6.0	4.0	5.0	4.0	2.0	23.0
23	4.0	7.0	5.0	2.0	8.5	10.0	15.5	11.5	9.5	2.0	0.0	0.0	75.0
24	0.0	0.0	7.0	8.5	7.0	9.0	11.5	9.5	11.5	2.0	5.0	0.0	71.0
25	0.0	0.0	8.0	8.5	11.0	12.5	17.0	18.5	19.5	14.5	4.0	0.0	113.5
26	0.0	0.0	0.0	9.5	14.5	17.5	16.0	16.0	18.5	17.0	9.5	8.0	126.5
27	5.0	6.0	6.0	4.0	7.0	7.5	15.5	15.5	14.5	9.5	0.0	0.0	90.5
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	9.5	9.5	9.5	0.0	38.0
29	0.0	0.0	0.0	0.0	0.0	14.5	11.0	11.0	14.5	5.0	2.0	0.0	58.0
30	8.5	11.0	10.0	11.0	10.0	9.5	9.0	9.0	6.0	0.0	0.0	0.0	84.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum	47.5	58.0	81.0	116.0	142.5	180.0	195.0	207.5	214.5	134.0	83.0	54.0	1513.5
Mean	2.7	4.1	5.1	7.3	8.9	11.2	12.2	13.0	13.4	8.4	5.2	3.4	7.9
Relative Velocity.	0.34	0.52	0.65	0.93	1.13	1.42	1.55	1.65	1.70	1.07	0.66	0.43	

ANEMOGRAPH. DIRECTION.

AUGUST, 1856.

Day.	Hour.												Mean daily direction.		
	0	2	4	6	8	10	12	14	16	18	20	22			
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°		
1	15.5	15.5	15.5	15.5	15.5	2.0	3.5	3.5	3.5	3.5	3.5	3.5	35		
2	3.5	3.5	3.5	3.0	3.0	3.0	3.5	4.0	3.5	3.5	3.5	3.5	75		
3	3.5	3.5	3.5	3.5	2.5	0.5	3.0	2.5	3.0	3.0	3.0	3.5	65		
4	3.5	3.5	3.5	3.5	2.5	2.0	2.0	2.5	2.5	2.5	2.5	2.5	60		
5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	1.0	0.0	0.0	0.0	0.0	35		
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		
7	0.0	0.0	0.0	0.0	0.0	0.0	15.0	12.0	11.5	11.5	11.5	11.5	315		
8	11.5	11.5	11.5	11.5	11.5	8.5	8.0	8.0	8.0	8.0	8.0	8.0	215		
9	8.0	9.0	10.0	10.0	10.0	10.0	7.5	11.0	10.5	10.5	10.5	10.0	225		
10	11.0	11.0	8.0	8.0	10.5	12.0	11.0	8.0	7.5	7.5	7.5	7.5	205		
11	7.5	7.5	7.5	7.5	11.5	11.5	11.0	11.0	11.0	10.0	9.5	9.5	215		
12	9.5	9.5	9.5	10.0	11.5	11.0	11.0	11.0	11.5	11.0	11.0	11.0	240		
13	11.0	11.0	11.0	11.0	8.5	8.0	8.0	9.5	9.5	10.5	10.5	10.5	225		
14	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.0	11.0	11.0	10.5	10.5	245		
15	10.5	10.5	10.5	10.5	12.5	12.5	12.0	11.5	11.0	10.5	10.5	10.5	250		
16	10.5	10.5	10.5	10.5	10.5	14.5	3.0	3.5	3.5	3.5	3.5	2.0	340		
17	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.0	2.0	40		
18	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	40		
19	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	20		
20	2.0	2.5	2.5	2.5	3.0	3.0	3.0	6.0	3.5	3.5	3.5	3.5	70		
21	3.5	4.0	6.5	7.5	8.0	8.0	7.5	7.5	7.5	7.0	7.0	7.0	155		
22	7.0	7.0	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5	0.0	15		
23	15.5	15.5	15.5	15.5	15.5	12.0	12.0	15.0	10.0	10.5	10.5	10.5	295		
24	10.5	10.5	10.5	10.0	9.0	11.0	11.5	11.0	10.5	11.5	10.5	9.5	235		
25	11.0	9.5	10.5	11.0	11.5	10.5	11.0	11.0	10.0	10.0	10.0	10.0	235		
26	10.5	10.5	10.5	11.0	12.0	13.0	13.0	12.0	12.0	11.0	11.0	.....	235	
27	.....	.....	.....	.....	.....	.....	.....	12.0	12.0	12.0	12.0	12.5	.....	
28	13.0	13.0	12.0	12.0	12.0	9.0	11.0	11.0	11.0	11.0	11.0	11.0	260		
29	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.5	12.5	15.5	15.5	270		
30	15.5	15.0	15.0	15.0	15.0	7.5	10.5	10.5	11.5	11.0	10.5	10.5	275		
31	10.5	10.5	10.5	11.5	11.5	11.5	12.0	11.0	11.0	11.0	11.0	11.0	250		
Mean direction.	283°	273°	258°	268°	300°	305°	285°	274°	279°	287°	252°	253°	276°		
0 { N { 0°	1 { NNE { 22°.5	2 { NE { 45°	3 { ENE { 67°.5	4 { E { 90°	5 { ESE { 112°.5	6 { SE { 135°	7 { SSE { 157°.5	8 { S { 180°	9 { SSW { 202°.5	10 { SW { 225°	11 { WSW { 247°.5	12 { W { 270°	13 { WNW { 292°.5	14 { NW { 315°	15 { NNW { 337°.5

ANEMOGRAPH. VELOCITY.

AUGUST, 1856.

Day.	Hour.												Sum.
	0—2	2—4	4—6	6—8	8—10	10—12	12—14	14—16	16—18	18—20	20—22	22—0	
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	0.0	0.0	0.0	0.0	0.0	7.0	4.0	4.0	7.5	2.0	0.0	0.0	24.5
2	0.0	0.0	4.0	4.0	4.0	8.5	6.0	10.0	9.5	0.0	0.0	0.0	45.5
3	0.0	0.0	0.0	7.0	7.0	5.0	19.0	5.0	18.0	5.0	2.0	2.0	70.0
4	0.0	0.0	4.0	8.5	9.5	11.0	9.0	9.5	6.0	2.0	0.0	0.0	59.5
5	0.0	0.0	2.0	4.0	9.5	0.0	0.0	13.0	11.5	9.0	4.0	0.0	53.0
6	0.0	0.0	0.0	6.0	8.5	6.0	7.0	10.0	9.0	5.0	0.0	0.0	51.5
7	0.0	0.0	0.0	0.0	0.0	0.0	7.0	9.5	9.5	4.0	4.0	0.0	34.0
8	0.0	2.0	0.0	0.0	0.0	9.5	7.0	2.0	17.0	2.0	0.0	7.5	47.0
9	4.0	0.0	2.0	0.0	4.0	7.0	8.0	7.5	0.0	9.5	9.0	9.0	60.0
10	8.0	7.0	4.0	8.0	8.5	8.5	7.5	8.5	11.5	0.0	0.0	2.0	73.5
11	4.0	2.0	4.0	7.0	12.0	11.0	12.0	10.0	8.0	6.0	4.0	6.0	86.0
12	2.0	2.0	4.0	7.5	11.0	11.5	14.5	15.5	9.5	7.0	0.0	0.0	84.5
13	0.0	0.0	4.0	5.0	8.0	8.5	9.5	9.5	9.5	4.0	4.0	2.0	64.0
14	2.0	0.0	4.0	8.0	13.0	17.0	15.5	16.5	16.0	7.5	8.5	8.5	116.5
15	14.5	12.0	11.0	4.0	23.0	24.0	23.0	21.0	17.5	9.5	7.5	4.0	171.0
16	0.0	0.0	0.0	0.0	4.0	7.5	7.0	6.0	7.0	2.0	12.0	2.0	47.5
17	20.0	12.0	14.5	15.5	11.5	19.0	18.5	18.5	20.0	20.0	31.0	18.5	219.0
18	21.0	17.5	20.0	21.0	20.0	24.0	20.0	18.0	17.0	15.5	11.0	11.5	216.5
19	11.5	9.0	10.0	12.0	11.0	11.5	12.0	11.0	11.5	10.0	11.0	9.0	129.5
20	8.0	7.5	9.5	13.0	13.0	14.5	7.5	11.5	13.0	18.0	18.0	17.5	151.0
21	16.5	11.5	18.0	18.5	16.5	19.0	16.5	16.0	12.0	6.0	0.0	0.0	150.5
22	0.0	0.0	0.0	6.0	11.5	19.0	16.5	13.0	15.5	8.5	4.0	0.0	94.0
23	0.0	0.0	0.0	6.0	2.0	4.0	4.0	2.0	2.0	2.0	2.0	0.0	24.0
24	2.0	2.0	0.0	4.0	7.0	9.0	11.5	9.5	6.0	9.5	7.5	6.0	74.0
25	9.5	6.0	7.0	7.0	16.0	14.5	17.0	27.0	24.0	24.0	17.0	22.5	191.5
26	17.0	11.0	11.0	14.5	13.0	8.0	22.5	15.5	8.0	8.0	.....	.....	128.5
27	.....	.....	.....	.....	.....	.....	25.0	25.0	10.0	8.0	5.0	0.0	73.0
28	5.0	7.5	0.0	2.0	6.0	15.5	16.0	17.0	26.5	17.0	17.0	20.0	149.5
29	19.0	17.5	16.0	18.0	18.5	21.0	19.0	18.0	12.0	2.0	2.0	0.0	163.0
30	0.0	0.0	0.0	0.0	6.0	7.5	8.0	9.5	7.0	5.0	7.0	7.0	57.0
31	5.0	7.5	8.5	8.5	8.5	9.5	14.5	15.5	7.0	4.0	0.0	0.0	88.5
Sum	169.0	134.0	157.5	215.0	232.5	338.0	384.5	384.5	358.5	232.0	187.5	155.0	2998.0
Mean	5.6	4.5	5.2	7.2	9.4	11.3	12.4	12.4	11.6	7.5	6.3	5.2	8.2
Relative Velocity.	0.69	0.55	0.63	0.88	1.15	1.37	1.51	1.51	1.41	0.91	0.76	0.63	

August 26. 20^h. } The picture failed in consequence of the paper having been improperly placed on the
 27. 10^h. }

ANEMOGRAPHIC. DIRECTION.

SEPTEMBER, 1856.

Day.	Hour.												Mean daily direction.		
	0	2	4	6	8	10	12	14	16	18	20	22			
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°		
1	11.0	11.0	11.0	11.0	11.0	11.5	11.0	10.5	10.5	11.0	12.0	15.5	260		
2	15.5	15.5	13.0	15.5	15.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	350		
3	0.0	0.0	0.0	0.0	0.0	0.0	13.0	11.5	12.0	12.0	12.0	12.0	315		
4	12.0	12.0	12.0	12.0	12.0	7.5	7.0	7.0	7.0	7.0	4.0	3.5	195		
5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	80		
6	3.5	3.5	3.5	3.5	3.5	3.0	2.5	3.0	3.0	3.0	3.0	3.0	70		
7	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	75		
8	4.0	4.0	4.0	4.0	4.0	4.0	13.5	11.5	12.5	12.5	12.5	12.5	15		
9	12.5	12.5	12.5	12.5	12.5	7.0	7.5	8.0	5.0	5.0	4.0	4.0	190		
10	3.5	2.0	2.0	2.0	1.5	2.0	3.5	6.5	2.5	5.0	2.0	1.5	65		
11	1.0	0.5	1.0	1.5	1.5	1.5	1.5	2.5	2.0	2.0	1.0	1.5	35		
12	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15		
13	0.0	0.0	0.0	14.5	13.5	13.5	13.5	14.5	14.0	13.5	13.5	13.5	325		
14	13.5	13.5	13.5	13.5	13.5	15.5	15.5	13.5	14.0	14.0	14.0	14.0	320		
15	14.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	12.5	12.0	11.0	255		
16	11.0	11.0	12.5	12.0	12.0	13.0	12.0	12.5	12.0	12.5	12.5	12.5	275		
17	12.5	12.5	12.5	11.5	11.0	11.5	11.5	11.0	10.5	10.5	10.5	11.0	255		
18	11.0	14.0	15.0	15.0	12.0	12.5	13.5	13.5	12.5	12.5	12.5	12.5	290		
19	12.5	12.0	12.0	12.0	12.5	13.0	13.0	13.5	14.0	13.0	14.5	15.5	295		
20	15.0	14.0	14.0	14.0	14.5	15.0	14.5	15.0	15.0	15.0	14.5	14.0	325		
21	13.0	13.0	11.0	11.0	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.0	260		
22	11.0	11.0	11.0	11.5	10.5	11.0	11.5	12.0	11.0	11.0	11.0	11.0	250		
23	11.0	11.0	11.0	11.5	11.0	11.0	11.0	11.0	11.0	11.0	11.5	11.0	250		
24	11.0	11.0	10.5	10.5	10.0	11.0	11.0	8.0	7.5	7.5	9.0	9.0	220		
25	9.0	11.0	11.0	11.0	11.5	11.5	11.5	11.5	11.5	12.0	11.0	11.0	250		
26	10.5	10.5	10.5	10.5	10.5	10.5	11.0	11.0	8.0	6.0	7.0	7.0	225		
27	7.0	5.5	3.5	4.5	3.5	3.5	10.5	10.5	10.5	4.0	4.0	4.0	130		
28	2.5	1.5	4.5	3.5	2.5	0.5	0.0	10.5	10.5	10.5	10.5	10.5	125		
29	11.0	11.0	10.5	11.0	11.0	13.0	12.0	11.0	12.0	11.0	11.0	11.0	255		
30	11.0	11.0	11.0	11.0	11.0	13.0	11.5	11.5	12.0	11.5	11.5	11.5	260		
Mean direction.	289°	283°	285°	295°	292°	312°	286°	262°	277°	277°	288°	306°	288°		
0	N 0°	1	NNE 22°.5	2	NE 45°	3	ENE 67°.5	4	E 90°	5	ESE 112°.5	6	SE 135°	7	SSE 157°.5
8	S 180°	9	SSW 202°.5	10	SW 225°	11	WSW 247°.5	12	W 270°	13	WNW 292°.5	14	NW 315°	15	NNW 337°.5

ANEMOGRAPH. VELOCITY.

SEPTEMBER, 1856.

Day.	Hour.												Sum.
	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20	20-22	22-0	
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	0.0	0.0	0.0	0.0	0.0	5.0	4.0	4.0	7.0	12.0	9.0	6.0	47.0
2	0.0	6.0	6.0	9.0	11.0	13.0	12.0	12.0	6.0	0.0	0.0	0.0	75.0
3	0.0	0.0	0.0	0.0	4.0	6.0	6.0	9.0	7.0	0.0	0.0	0.0	32.0
4	0.0	0.0	0.0	2.0	5.0	12.0	10.0	9.5	7.5	7.5	8.0	0.0	61.5
5	0.0	0.0	0.0	0.0	9.0	9.5	17.0	12.0	7.5	10.0	2.0	5.0	72.0
6	0.0	0.0	0.0	7.0	11.0	10.0	9.0	5.0	0.0	0.0	0.0	0.0	42.0
7	0.0	0.0	5.0	2.0	5.0	2.0	4.0	2.0	0.0	0.0	0.0	4.0	24.0
8	5.0	0.0	2.0	2.0	2.0	2.0	4.0	5.0	0.0	0.0	0.0	0.0	22.0
9	0.0	0.0	0.0	0.0	4.0	7.0	7.0	5.0	4.0	2.0	2.0	2.0	33.0
10	4.0	0.0	2.0	7.0	8.5	11.5	7.5	6.0	2.0	4.0	2.0	6.0	60.5
11	8.0	8.5	8.5	8.0	10.0	10.0	14.5	12.0	14.5	10.0	11.5	7.5	123.0
12	(2.0	2.0	5.0	7.5)	.....	.....	.....	.....	.....	.....	.....	(1.5)	.....
13	1.5	1.5	0.0	1.5	3.5	8.0	8.0	5.0	2.5	5.0	3.5	2.5	42.5
14	0.0	0.0	2.5	3.5	9.5	10.5	9.5	6.5	2.5	1.5	1.5	1.5	49.0
15	7.0	2.5	6.5	12.0	11.0	18.5	19.0	17.0	13.5	6.5	13.5	14.5	141.5
16	17.5	11.0	11.0	13.0	15.0	17.5	10.5	10.5	11.0	6.5	5.5	8.0	137.0
17	6.5	4.0	7.0	11.0	23.0	27.0	17.0	19.0	21.0	19.0	19.0	13.5	187.0
18	8.0	6.5	3.5	6.5	9.0	7.0	10.5	12.0	6.5	4.0	5.0	8.0	86.5
19	8.0	6.5	7.0	8.0	10.5	16.0	13.5	15.0	8.0	8.0	5.5	4.0	110.0
20	4.0	5.5	5.0	9.0	15.0	16.0	15.0	16.0	9.0	3.0	4.0	3.0	104.5
21	2.5	7.0	6.5	5.5	5.5	12.0	12.0	13.0	13.0	9.5	11.0	11.0	108.5
22	9.5	8.0	6.5	8.0	5.0	16.0	13.5	10.5	18.5	18.5	12.0	13.0	139.0
23	14.5	13.0	13.5	14.5	16.0	17.0	20.0	21.5	15.0	9.5	12.0	13.5	180.0
24	14.5	9.5	10.5	5.0	9.0	8.0	6.5	8.0	3.5	3.0	1.5	3.5	82.5
25	6.5	7.0	11.0	17.5	25.0	24.0	24.0	13.0	11.0	9.0	13.5	10.5	172.0
26	12.0	9.0	9.5	8.0	9.5	10.5	8.0	8.0	10.5	7.0	8.0	8.0	108.0
27	8.0	13.0	15.0	15.0	16.0	13.0	3.0	5.0	5.0	2.5	3.5	7.0	106.0
28	13.5	10.5	5.5	9.5	10.5	6.5	9.5	8.0	9.0	11.0	14.5	16.0	124.0
29	15.0	11.0	6.5	25.0	12.0	12.0	12.0	12.0	16.0	14.5	12.0	13.0	161.0
30	14.5	12.0	13.0	12.0	12.0	12.0	12.0	13.5	9.0	5.0	5.0	3.0	123.0
Sum	180.0	152.0	163.5	221.5	286.5	339.5	318.5	295.0	240.0	188.5	185.0	184.0	2754.0
Mean	6.2	5.2	5.6	7.6	9.9	11.7	11.0	10.2	8.3	6.5	6.4	6.3	7.9
Relative Velocity.	0.78	0.66	0.71	0.96	1.25	1.48	1.39	1.29	1.05	0.82	0.81	0.80	

September 12. 8^h—20^h. The Cups and Shaft removed, and replaced by lighter ones.

ANEMOGRAPH. DIRECTION.

OCTOBER, 1856.

Day.	Hour.												Mean daily direction.										
	0	2	4	6	8	10	12	14	16	18	20	22											
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°										
1	11.5	11.5	11.5	11.5	11.5	8.0	7.0	7.5	7.0	7.0	7.0	7.0	200										
2	7.0	7.0	6.5	7.0	7.0	7.5	7.0	7.5	7.0	10.5	7.5	7.0	165										
3	7.0	7.5	7.0	7.0	7.5	7.5	7.5	7.5	7.5	7.5	7.0	7.5	165										
4	7.5	7.5	7.5	7.5	11.0	11.0	11.0	11.0	11.0	8.5	8.5	8.5	205										
5	8.5	8.5	8.5	8.5	8.5	10.0	10.5	11.0	10.5	9.0	9.0	9.0	210										
6	9.0	9.0	9.0	9.0	9.5	0.5	1.5	1.5	2.5	2.5	2.5	2.5	85										
7	3.5	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5	50										
8	1.5	1.5	1.0	1.0	1.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0	15										
9	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	5										
10	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	10										
11	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	1.0	1.0	1.0	15										
12	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	20										
13	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	20										
14	1.0	1.0	1.0	1.5	3.0	3.0	4.0	5.0	4.5	5.5	6.0	6.5	80										
15	7.0	8.5	8.0	7.5	8.0	7.5	7.5	7.5	11.0	12.0	12.0	11.5	200										
16	12.0	11.5	12.0	11.5	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0	265										
17	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	270										
18	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	270										
19	12.0	12.0	12.0	12.0	12.0	12.0	12.0	13.0	0.0	0.0	0.0	0.0	300										
20	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.5	2.0	2.0	2.0	2.0	20										
21	2.0	2.0	2.0	2.0	2.0	2.5	2.5	5.0	7.0	7.0	7.0	7.0	90										
22	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.5	7.5	7.5	160										
23	7.5	7.5	7.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	220										
24	10.5	0.5	0.5	0.5	0.5	2.0	2.0	2.5	2.5	2.5	2.5	2.5	35										
25	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	55										
26	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	55										
27	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	55										
28	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	55										
29	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	55										
30	2.5	2.5	2.5	2.5	2.5	2.5	2.5	7.0	7.5	7.5	7.5	7.5	110										
31	7.5	7.0	7.0	7.0	7.0	7.0	7.0	7.5	15.0	15.0	15.0	15.0	165										
Mean direction.	61°	35°	50°	42°	31°	40°	56°	65°	43°	43°	52°	44°	47°										
0	{ N 0°		1	{ NNE 22°.5		2	{ NE 45°		3	{ ENE 67°.5		4	{ E 90°		5	{ ESE 112°.5		6	{ SE 135°		7	{ SSE 157°.5	
8	{ S 180°		9	{ SSW 202°.5		10	{ SW 225°		11	{ WSW 247°.5		12	{ W 270°		13	{ WNW 292°.5		14	{ NW 315°		15	{ NNW 337°.5	

ANEMOGRAPH. VELOCITY.

OCTOBER, 1856.

Day.	Hour.												Sum.
	0—2	2—4	4—6	6—8	8—10	10—12	12—14	14—16	16—18	18—20	22—24	24—0	
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	0.0	2.5	1.5	1.5	4.0	5.0	8.0	9.5	7.0	5.5	4.0	4.0	52.5
2	4.0	5.5	6.5	4.0	11.0	12.0	14.5	10.5	10.5	5.5	7.0	9.0	100.0
3	9.5	10.5	9.5	12.0	16.0	13.5	10.5	12.0	12.0	11.0	10.5	14.0	141.0
4	14.5	10.5	9.5	13.5	13.5	14.5	20.0	9.5	6.5	1.5	3.0	0.0	116.5
5	1.5	1.5	3.5	3.0	5.0	6.5	5.0	4.0	3.5	1.5	1.5	4.0	40.5
6	3.0	0.0	0.0	2.5	9.0	10.5	11.0	13.5	12.0	15.0	16.0	18.5	111.0
7	2.5	17.5	12.0	7.0	9.0	9.0	10.5	13.0	9.5	10.5	5.0	9.0	114.5
8	7.0	5.0	5.5	7.0	11.0	13.5	12.0	11.0	9.5	7.0	5.5	5.0	99.0
9	4.0	0.0	1.5	1.5	7.0	5.5	5.5	5.0	3.5	3.0	3.5	2.5	42.5
10	1.5	3.0	3.0	3.5	3.0	2.5	2.5	1.5	2.5	0.0	1.5	1.5	26.0
11	3.0	5.0	5.0	6.5	9.0	5.5	7.0	5.5	6.5	3.0	2.5	1.5	60.0
12	2.5	0.0	1.5	0.0	0.0	1.5	2.5	0.0	1.5	1.5	0.0	1.5	12.5
13	0.0	1.5	1.5	1.5	1.5	2.5	3.0	4.0	1.5	0.0	1.5	1.5	20.0
14	2.5	3.0	8.0	8.0	5.5	5.5	5.5	5.5	5.0	5.5	5.5	7.0	66.5
15	7.0	8.0	12.0	14.5	13.5	17.0	13.5	29.5	19.0	16.0	19.0	21.5	190.5
16	20.0	21.5	14.5	9.5	8.0	21.0	9.5	16.0	5.5	9.0	7.0	8.0	149.5
17	5.0	5.5	3.0	3.0	2.5	8.0	8.0	5.5	3.0	3.0	1.5	3.0	51.0
18	3.5	1.5	2.5	2.5	3.0	3.5	5.0	2.5	1.5	1.5	1.5	0.0	28.5
19	0.0	0.0	1.5	3.0	3.0	2.5	5.0	8.0	3.5	1.5	3.0	9.5	40.5
20	5.0	3.0	7.0	7.0	5.0	10.5	9.5	8.0	7.0	3.5	3.0	1.5	70.0
21	0.0	0.0	0.0	0.0	2.5	4.0	3.0	3.5	6.0	1.5	0.0	0.0	20.5
22	0.0	0.0	0.0	1.5	2.5	7.0	5.0	5.5	5.5	3.0	2.5	2.5	35.0
23	1.5	1.5	3.0	2.5	1.5	1.5	2.5	3.5	1.5	1.5	2.5	9.0	32.0
24	6.5	4.0	6.5	8.0	13.5	14.5	12.0	10.5	5.5	3.5	1.5	0.0	86.0
25	0.0	0.0	4.0	1.5	3.0	7.0	6.5	5.5	0.0	0.0	0.0	0.0	27.5
26	0.0	0.0	0.0	0.0	3.0	5.5	8.0	6.5	2.5	1.5	1.5	2.5	31.0
27	0.0	0.0	0.0	1.5	5.5	10.5	12.0	9.5	1.5	1.5	1.5	0.0	43.5
28	0.0	0.0	3.0	3.0	0.0	3.0	3.0	1.5	1.5	0.0	0.0	1.5	16.5
29	0.0	1.5	1.5	1.5	1.5	1.5	1.5	2.5	1.5	3.0	5.0	5.0	26.0
30	1.5	1.5	2.5	5.0	6.5	10.5	9.5	13.0	8.0	8.0	5.5	6.5	78.0
31	7.0	10.5	8.0	4.0	3.5	3.5	5.5	5.0	0.0	1.5	0.0	1.5	50.0
Sum	112.5	124.0	137.5	139.5	182.5	238.5	236.5	240.5	164.0	130.0	122.0	151.0	1978.5
Mean	3.6	4.0	4.4	4.5	5.9	7.7	7.6	7.8	5.3	4.2	3.9	4.9	5.3
Relative Velocity.	0.68	0.76	0.84	0.85	1.11	1.45	1.44	1.46	1.00	0.79	0.74	0.92	

ANEMOGRAPH. DIRECTION.

NOVEMBER, 1856.

Day.	Hour.												Mean daily direction.		
	0	2	4	6	8	10	12	14	16	18	20	22			
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°		
1	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	335		
2	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	335		
3	15.0	15.0	15.0	15.0	15.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	345		
4	15.5	15.5	15.5	15.5	15.5	15.5	15.5	13.5	13.5	13.5	13.5	13.5	330		
5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	305		
6	13.5	13.5	13.5	13.5	13.5	13.5	14.5	3.0	3.0	3.0	2.5	2.5	355		
7	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	55		
8	2.5	2.5	2.5	2.5	2.5	2.5	11.0	11.0	11.5	12.0	13.5	13.5	352		
9	13.5	13.5	13.5	13.5	13.5	13.5	13.5	11.5	11.5	11.5	12.0	12.5	290		
10	12.5	12.0	13.0	12.0	13.0	15.5	15.5	15.5	15.5	15.5	15.0	15.0	320		
11	15.0	15.0	15.0	15.0	14.5	13.5	14.0	14.5	14.5	15.0	15.5	0.0	335		
12	0.0	0.0	0.0	0.0	15.0	15.0	14.5	0.0	15.0	14.0	14.0	14.5	340		
13	14.5	14.5	14.0	14.5	13.0	13.0	12.0	12.0	11.5	11.5	11.0	12.0	290		
14	12.0	12.0	13.0	0.0	0.0	15.5	15.0	15.0	14.5	14.5	14.5	13.5	320		
15	13.5	13.5	13.5	12.5	12.5	12.5	11.5	12.0	11.5	11.5	11.0	11.5	275		
16	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	20		
17	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	20		
18	1.0	11.5	11.5	12.5	12.5	13.0	15.0	15.5	15.0	15.5	15.5	15.5	315		
19	15.5	15.5	15.5	15.5	15.5	11.0	13.5	13.5	13.5	12.5	12.5	12.0	315		
20	11.0	11.0	12.0	12.5	12.5	13.0	13.0	13.0	13.0	13.5	13.5	12.5	285		
21	14.0	14.5	14.5	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	300		
22	12.5	11.5	11.5	11.5	11.5	12.0	12.5	13.0	13.0	12.0	11.5	11.5	270		
23	11.0	11.0	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5	11.5	11.5	255		
24	12.0	11.5	11.5	11.5	11.5	12.0	12.5	12.5	14.0	12.0	12.0	12.5	270		
25	13.5	14.0	13.5	13.0	15.0	0.0	15.5	15.5	15.5	15.5	15.5	15.0	330		
26	12.0	11.5	8.0	8.0	7.5	7.5	12.0	2.0	2.0	2.0	2.0	12.5	215		
27	11.0	11.0	11.0	11.0	10.5	11.0	11.0	14.0	13.5	13.5	13.5	13.5	265		
28	13.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	0.5	0.5	0.5	300		
29	0.5	0.5	0.5	15.0	13.0	11.0	12.5	12.0	12.0	12.0	12.0	12.0	305		
30	12.0	12.0	12.0	12.0	12.0	14.0	0.0	14.5	14.5	14.0	15.0	14.5	305		
Mean direction.	315°	320°	313°	312°	311°	308°	315°	327°	321°	329°	321°	316°	317°		
0 { N 0°	1 { NNE 22°.5	2 { NE 45°	3 { ENE 67°.5	4 { E 90°	5 { ESE 112°.5	6 { SE 135°	7 { SSE 157°.5	8 { S 180°	9 { SSW 202°.5	10 { SW 225°	11 { WSW 247°.5	12 { W 270°	13 { WNW 292°.5	14 { NW 315°	15 { NNW 337°.5

ANEMOGRAPH. VELOCITY.

NOVEMBER, 1856.

Day.	Hour.												Sum.
	0—2	2—4	4—6	6—8	8—10	10—12	12—14	14—16	16—18	18—20	20—22	22—0	
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	1.5	1.5	1.5	3.0	3.5	3.0	6.5	7.0	3.5	3.0	2.5	1.5	38.0
2	1.5	2.5	2.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	1.5	0.0	14.0
3	1.5	0.0	1.5	2.5	4.0	4.0	5.0	1.5	1.5	1.5	0.0	1.5	24.5
4	0.0	0.0	3.0	0.0	2.5	3.0	6.5	0.0	0.0	0.0	5.5	3.0	23.5
5	1.5	1.5	3.0	3.0	2.5	4.0	5.0	5.0	3.0	2.5	1.5	3.5	36.0
6	3.0	5.0	3.5	5.0	6.5	11.0	13.5	12.0	13.0	5.0	6.5	5.5	89.5
7	4.0	2.5	1.5	1.5	1.5	8.0	9.0	8.0	3.5	4.0	1.5	0.0	45.0
8	1.5	1.5	3.0	7.0	7.0	13.5	16.0	16.0	13.0	6.5	4.0	3.0	92.0
9	3.0	2.5	1.5	2.5	4.0	9.0	11.0	15.0	3.0	12.0	11.0	11.0	85.5
10	19.0	11.0	9.5	7.0	8.0	16.0	12.0	14.5	9.5	7.0	4.0	5.0	122.5
11	6.5	4.0	6.5	9.0	11.0	13.5	15.0	16.0	13.0	16.0	17.0	18.5	146.0
12	21.5	22.5	18.5	15.0	17.0	15.0	21.0	18.5	12.0	13.5	12.0	7.0	193.5
13	12.0	9.0	7.0	7.0	4.0	8.0	9.5	10.5	6.5	21.0	19.0	11.0	124.5
14	13.0	10.5	13.5	9.0	16.0	13.0	11.0	13.0	5.0	5.0	5.5	4.0	118.5
15	4.0	4.0	9.0	10.5	11.0	14.5	17.5	18.5	18.5	19.0	18.5	6.5	151.5
16	6.5	5.0	1.5	1.5	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5
17	2.5	1.5	0.0	1.5	0.0	5.0	5.0	1.5	1.5	0.0	3.5	11.0	33.0
18	11.0	9.5	2.5	8.0	5.5	2.5	1.5	.....	.....	.....	.....	.....	.....
19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	8.0	3.0	7.0	5.5	4.0	8.0	8.0	3.5	5.5	6.5	10.5	12.0	81.5
22	13.0	13.0	13.0	13.0	14.5	14.5	11.0	12.0	11.0	13.5	16.0	19.0	163.5
23	24.0	24.0	24.0	24.0	24.0	26.5	29.0	24.0	28.0	36.0	28.0	17.0	308.5
24	34.5	33.0	33.5	24.0	32.0	24.0	21.0	14.5	9.5	16.0	16.0	14.5	272.5
25	17.5	13.5	9.0	11.0	14.5	16.0	11.0	5.5	3.0	5.0	9.5	10.5	126.0
26	4.0	5.0	5.5	10.5	7.0	13.0	9.0	5.5	3.5	3.5	3.5	15.0	85.0
27	13.5	12.0	13.0	15.0	20.0	24.0	24.0	6.5	5.5	3.5	2.5	1.5	141.0
28	6.5	6.5	3.5	4.0	3.5	2.5	3.5	0.0	12.0	6.5	8.0	5.0	61.5
29	1.5	5.0	5.0	5.5	11.0	11.0	9.0	10.5	7.0	5.5	2.5	2.5	76.0
30	3.5	2.5	3.5	5.5	8.0	14.5	16.0	13.5	7.0	8.0	10.5	7.0	99.5
Sum	228.0	202.0	203.5	204.5	238.5	299.0	306.5	252.5	198.5	220.0	220.5	196.0	2770.0
Mean	8.1	7.1	7.2	7.4	8.6	10.3	11.0	9.4	7.3	8.2	8.3	7.3	8.5
Relative Velocity.	0.95	0.84	0.85	0.87	1.01	1.21	1.29	1.11	0.86	0.96	0.98	0.86	

November 18. 14^h. } The Instrument was stopped during this time, to make an alteration to diminish the
 20. 22^h. } friction.

ANEMOGRAPHIC. DIRECTION.

DECEMBER, 1856.

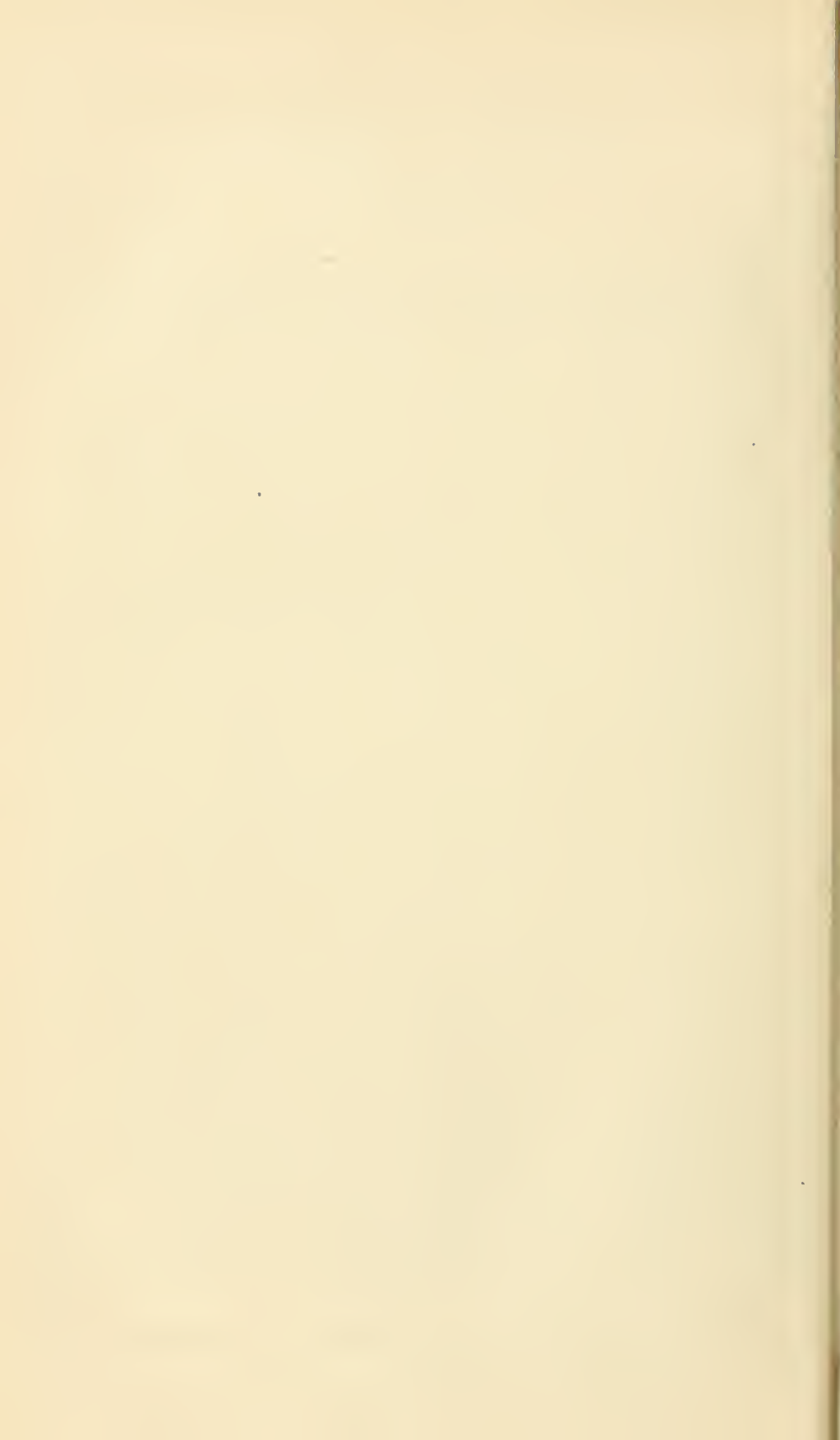
Day.	Hour.												Mean daily direction.		
	0	2	4	6	8	10	12	14	16	18	20	22			
	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	Div.	°		
1	14.5	14.5	14.5	14.5	14.0	13.5	14.0	14.0	12.0	12.0	12.0	12.0	305		
2	12.0	12.0	12.0	12.0	12.0	12.0	12.0	11.5	10.5	10.5	10.5	10.5	260		
3	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	235		
4	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	8.5	8.5	10.0	230		
5	7.0	7.0	7.0	7.0	7.0	7.0	7.0	11.0	10.5	7.5	9.5	11.0	185		
6	11.0	10.5	10.5	10.5	10.5	11.0	11.0	11.0	11.0	11.0	11.0	11.0	245		
7	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	245		
8	7.5	11.0	11.0	11.0	11.0	11.5	11.5	7.5	7.5	7.5	7.5	11.5	220		
9	11.5	11.0	11.0	11.0	7.5	7.0	7.5	7.5	7.5	11.0	11.0	11.0	215		
10	11.0	7.5	7.0	7.5	7.5	7.5	7.5	11.0	11.0	11.0	10.5	10.5	235		
11	9.0	9.0	9.0	9.0	9.0	9.0	11.0	9.5	8.0	7.0	7.0	7.5	295		
12	11.0	11.0	11.0	11.0	11.0	9.0	8.0	7.5	7.5	11.0	11.0	11.5	225		
13	10.5	10.5	10.0	8.0	7.5	7.5	11.0	15.0	13.0	14.0	13.5	12.0	195		
14	12.0	13.0	13.5	13.0	13.0	14.5	14.5	15.5	15.0	15.0	15.0	15.0	315		
15	15.5	15.0	15.0	15.0	15.0	15.0	15.0	15.5	15.5	15.5	15.5	15.5	350		
16	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	350		
17	15.5	15.5	15.5	15.5	12.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	275		
18	10.5	10.5	10.5	9.0	10.5	11.5	15.0	15.5	15.0	0.0	0.0	0.0	295		
19	15.5	15.5	15.5	15.5	15.5	15.5	12.0	12.0	12.0	12.0	11.0	10.5	305		
20	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.5	10.5	11.0	11.0	250		
21	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.5	11.5	10.5	10.5	250		
22	11.0	11.0	11.0	11.0	11.0	12.0	11.5	11.0	10.5	11.0	11.0	11.0	250		
23	11.0	0.5	0.5	0.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	24		
24	1.5	1.5	1.5	10.5	10.5	11.5	11.5	11.0	11.0	11.0	12.0	12.0	280		
25	12.0	12.0	12.0	12.0	12.0	12.0	1.0	1.5	1.0	1.0	1.0	1.0	325		
26	1.0	15.0	13.5	12.0	12.5	12.5	15.0	15.0	15.0	15.0	15.0	15.5	320		
27	14.5	14.5	14.0	13.0	13.0	13.0	13.5	13.5	13.0	13.0	13.0	13.0	300		
28	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.5	13.0	13.0	12.0	11.5	290		
29	11.5	11.5	12.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	11.5	11.5	270		
30	11.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0	11.0	11.0	11.0	11.5	250		
31	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.5	11.0	11.0	250		
Mean direction.	266°	270°	269°	259°	257°	258°	267°	270°	260°	268°	262°	265°	264°		
0 { N 0°	1 { NNE 22°.5	2 { NE 45°	3 { ENE 67°.5	4 { E 90°	5 { ESE 112°.5	6 { SE 135°	7 { SSE 157°.5	8 { S 180°	9 { SSW 202°.5	10 { SW 225°	11 { WSW 247°.5	12 { W 270°	13 { WNW 292°.5	14 { NW 315°	15 { NNW 337°.5

ANEMOGRAPH. VELOCITY.

DECEMBER, 1856.

Day.	Hour.												Sum.
	0—2	2—4	4—6	6—8	8—10	10—12	12—14	14—16	16—18	18—20	20—22	22—0	
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	4.0	2.5	5.5	11.0	17.0	9.5	5.5	5.0	2.5	2.5	2.5	3.5	71.0
2	4.0	4.0	3.5	3.0	2.5	3.5	8.0	4.0	2.5	4.0	5.0	6.5	50.5
3	10.5	2.5	5.0	1.5	3.5	10.5	15.0	15.0	14.5	11.0	9.5	5.5	104.0
4	3.5	1.5	3.5	3.0	3.0	4.0	5.0	3.0	3.5	4.0	5.5	6.5	46.0
5	10.5	9.5	7.0	9.0	8.0	5.5	8.0	17.5	12.0	17.5	17.0	17.5	139.0
6	28.0	33.0	25.5	21.5	32.0	32.0	29.5	30.5	31.0	37.0	29.5	35.0	364.5
7	37.0	30.5	25.5	32.0	32.0	32.0	32.0	30.5	17.5	21.0	19.0	19.0	328.0
8	13.5	20.0	27.0	20.0	12.0	16.0	11.0	16.0	20.0	20.0	20.0	26.5	222.0
9	21.5	22.5	14.5	14.5	21.0	28.0	21.5	24.0	20.0	17.5	20.0	20.0	245.0
10	13.5	14.5	14.5	9.5	12.0	14.5	10.5	11.0	9.5	17.0	4.5	4.0	135.0
11	3.5	4.0	6.5	9.5	12.0	12.0	12.0	9.0	9.5	13.5	12.0	19.0	122.5
12	19.0	25.5	26.5	22.5	9.5	11.5	16.0	13.0	27.0	26.5	26.5	23.0	246.5
13	12.0	9.5	7.0	9.0	3.5	8.0	6.5	7.0	8.0	10.5	11.0	13.5	105.5
14	7.0	6.5	6.5	5.5	5.5	9.5	9.5	8.0	10.5	8.0	5.5	11.0	93.0
15	9.0	5.5	6.5	6.5	5.5	6.5	9.5	8.0	2.5	1.5	2.5	1.5	65.0
16	1.5	0.0	1.5	0.0	1.5	0.0	1.5	0.0	1.5	2.5	1.5	1.5	13.0
17	2.5	1.5	6.5	5.5	10.5	3.5	12.0	15.0	11.0	8.0	14.5	15.0	105.5
18	16.0	9.5	8.0	9.0	10.5	9.5	10.5	16.0	19.0	21.0	11.0	18.5	158.5
19	9.5	1.5	3.5	5.5	2.0	5.0	6.5	5.5	9.0	9.0	12.0	13.0	82.0
20	16.0	9.5	12.0	10.5	10.5	9.0	5.5	12.0	10.5	15.0	10.5	11.0	132.0
21	11.0	9.5	8.0	9.0	9.0	12.0	12.0	16.0	16.0	13.5	13.0	16.0	145.0
22	16.0	16.0	16.0	19.0	15.0	19.0	20.0	16.0	18.5	16.0	17.5	28.0	217.0
23	17.0	11.0	11.0	8.0	4.0	7.0	6.5	3.5	3.5	3.5	6.5	4.0	85.5
24	8.0	8.0	13.0	16.0	24.0	27.0	12.0	24.0	13.0	17.0	12.0	9.0	183.0
25	3.0	2.5	3.5	2.5	5.0	7.0	9.5	5.0	2.5	1.5	2.5	5.5	50.0
26	8.0	9.0	5.0	3.0	5.5	5.0	8.0	6.5	6.5	14.5	16.0	14.5	101.5
27	9.5	9.0	7.0	9.0	7.0	8.0	8.0	4.0	3.0	1.5	1.5	1.5	69.0
28	1.5	1.5	1.5	0.0	6.5	9.5	10.5	17.0	17.0	14.5	14.5	13.5	107.5
29	13.0	12.0	15.0	12.0	12.0*	15.0*	18.0*	21.0	20.0	15.0	13.0	16.0	182.0
30	4.0	3.0	9.0	11.0	17.5	12.0	21.5	25.5	19.0	13.0	19.0	21.0	175.5
31	16.0	13.0	13.0	9.0	13.0	10.5	16.0	15.0	13.0	14.5	16.0	7.0	156.0
Sum	349.0	307.5	318.0	307.0	332.5	362.0	378.5	403.0	373.5	391.5	371.0	407.0	4300.5
Mean	11.3	9.9	10.6	9.9	10.7	11.7	12.2	12.9	12.1	12.6	11.9	13.1	11.6
Relative Velocity.	0.97	0.85	0.91	0.85	0.92	1.01	1.05	1.11	1.04	1.09	1.03	1.13	

December 29. 8^h—12^h interpolated.



JANUARY, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^h .	Direction of Wind.		Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Dry.		Wet.							
				Min.	Max.	Min.	Max.						
	Inches.	°	°	°	°	°	°	Inches.	10 ^h .	14 ^h .			
1	29.697	41.1	40.3	35.2	43.3	...	43	.....	S E	S S E	1.5	10.0	Damp.
2	29.432	45.3	43.4	41.6	48.9	41	46	.....	E S E	S E	1.3	8.0	Fair.
3	29.375	45.7	44.1	41.8	47.8	42	47	0.077	S S E	S	1.0	10.0	.....
4	29.450	45.1	43.3	43.4	45.0	43	44	.....	S S E	S S E	1.3	10.0	Overcast.
5	29.318	45.6	45.6	43.5	47.5	43	47	0.176	S E	S E	1.0	10.0	Drizzle.
6	29.088	46.1	44.8	41.3	46.5	42	46	0.146	E	E N E	1.3	10.0	... .
7	28.864	44.2	42.9	38.6	47.9	38	45	0.115	S E	N E	0.7	8.3	Fair.
8	28.898	39.7	38.5	35.6	43.2	34	40	0.004	N N W	N	0.7	10.0	Cloudy.
9	29.020	35.4	34.9	34.5	37.9	32	37	0.132	N N E	N N E	2.0	10.0	Overcast.
10	29.259	33.6	30.8	26.6	38.3	26	32	0.276	N E	N N E	2.3	5.3	Fair.
11	29.713	29.6	28.8	29.1	35.3	28	34	.....	N	N	1.3	3.0	Fine.
12	30.217	30.6	30.7	23.8	36.0	24	35	.....	N	N	1.3	3.0	.....
13	30.458	28.5	28.5	23.3	36.2	23	35	.....	N	N N E	0.7	0.0	Very fine.
14	30.100	26.4	26.0	21.3	35.6	21	35	.....	E N E	E	1.7	2.7	Fine.
15	29.765	31.0	30.1	29.8	40.8	29	38	.....	S	S S W	1.0	6.0	Showery.
16	29.732	39.7	38.7	38.8	43.3	39	43	0.016	S S W	S	0.7	10.0	Wet fog.
17	29.366	45.7	43.2	43.4	49.4	42	49	0.040	S W	S	2.0	10.0	Variable.
18	29.261	49.6	47.4	43.9	51.3	43	51	0.039	S	S W	1.3	10.0	Drizzle.
19	29.069	47.6	45.8	43.9	50.8	44	49	0.124	S S E	S W	1.0	9.7	.....
20	28.904	49.3	47.7	44.8	52.5	44	50	0.464	S W	S S W	1.8	10.0	Rain.
21	28.884	45.5	44.6	36.5	50.7	36	50	0.110	S	S S E	1.3	10.0	Wet fog.
22	29.174	38.0	36.5	37.9	47.5	37	46	0.327	N E	N E	2.0	9.7	Cloudy.
23	29.161	46.9	44.6	48.5	51.1	46	50	0.117	S W	S W	2.5	6.7	.....
24	28.817	49.1	46.6	40.0	53.4	39	50	0.118	S W	S W	3.7	9.3	Stormy.
25	28.965	44.7	41.8	37.4	48.2	37	46	0.267	N W	W	2.8	5.3	Fair.
26	29.281	43.1	41.3	39.8	49.3	38	46	0.016	S S W	W N W	1.7	8.0	Variable.
27	29.523	39.6	38.2	29.3	44.2	30	39	0.299	N W	N N W	1.2	4.0	Fair.
28	29.529	34.1	34.0	28.2	40.5	28	39	.....	W	W	1.8	2.7	Variable.
29	29.542	31.4	30.0	23.4	35.7	24	34	0.074	W N W	N N W	1.0	2.7	Light clouds.
30	29.688	30.3	28.4	27.5	36.9	27	34	.....	W N W	N	0.5	3.0	.....
31	29.976	32.7	33.8	32.6	37.1	31	36	.....	W N W	N W	0.7	6.7	Overcast.
Mean	29.404	39.7	38.6	35.6	44.3	35.0	42.5	2.937	S 72 W		1.5	7.2	
Day.	hr.							Day.	hr.				
2	18	Rain.						23	...	Stormy at night.			
4	10	Rain.						24	...	Hail and rain. Lightning at 20 ^h .			
7	23	New Moon.						...	10	Lowest Barometer 28.711 in.			
9	...	Snow and rain.						26	8	Moon in Apogee.			
10	8	Moon in Perigee.						28	...	Hail and snow.			
13	10	Highest Barometer 30.515 in.						30	9	Moon in last Quarter.			
14	16	Moon in 1st Quarter.						31	...	Snow and sleet.			
22	3	Full Moon.											

FEBRUARY, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^h .	Direction of Wind.		Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Dry.		Wet.							
	Inches.	°	°	°	°	°	°		10 ^h .	14 ^h .			
1	29.976	33.3	33.3	29.4	37.2	28	36	.....	W	W N W	0.5	8.0	Overcast.
2	29.834	31.0	31.4	29.7	34.2	30	34	.....	W	W S W	0.7	6.7	Variable.
3	29.849	33.0	33.2	20.9	39.3	28	40	.....	S S E	S E	1.0	5.7	.....
4	29.812	35.0	34.9	34.7	41.0	34	41	.....	S S E	S S W	0.7	10.0	Fog.
5	29.918	43.3	41.0	39.5	49.0	39	48	.....	S W	S S W	2.0	9.7	Cloudy.
6	29.611	49.8	47.7	47.6	52.7	47	52	.....	S W	S S W	4.3	10.0	.....
7	29.534	5.4	51.0	46.2	55.4	46	54	0.205	S W	S W	3.0	8.7	Rain a. m.
8	29.808	50.9	51.2	44.4	54.0	44	54	0.197	S S W	S W	1.3	8.0	.....
9	29.759	50.2	48.3	45.0	56.6	46	53	0.005	S W	S W	2.0	7.3	Fair.
10	29.760	50.4	49.6	43.0	53.6	44	52	.....	S S W	S S W	1.2	10.0	Thin fog.
11	29.674	46.9	47.4	43.2	50.0	44	50	.....	S	S	0.7	10.0	Showery.
12	29.470	50.1	49.6	42.7	52.4	43	52	0.275	S S W	S S W	2.7	8.3	Rain p. m.
13	29.519	48.1	48.2	43.3	51.5	43	52	0.233	S E	S	1.7	9.0	Rain a. m.
14	29.518	46.5	47.0	42.8	52.5	43	50	0.302	S S W	S W	3.0	4.0	Fair.
15	29.552	46.6	45.5	39.3	52.0	40	50	.....	S S W	S	1.8	8.0	Cloudy.
16	29.623	44.0	42.8	35.0	51.6	35	49	.....	N N E	E S E	0.3	2.7	Fine.
17	29.680	38.2	38.0	32.2	43.5	31	42	.....	E	E	2.0	10.0	Overcast.
18	29.618	31.0	31.4	30.9	35.0	31	35	.....	N E	N E	2.5	10.0	Light snow.
19	29.645	30.6	30.4	31.2	34.0	31	34	.....	N E	N E	2.0	10.0	Dull.
20	29.746	31.1	31.2	30.5	36.0	31	34	0.097	N N E	N E	2.2	10.0	Lowering.
21	29.865	30.3	30.9	29.7	36.8	30	36	.....	N E	N N E	3.2	10.0	Overcast.
22	29.881	34.5	34.2	32.8	40.8	32	39	.....	W	N W	1.3	10.0	.....
23	29.930	40.7	38.8	29.2	48.0	29	44	.....	N	N	1.0	6.3	Fair.
24	30.222	38.2	37.0	36.0	47.5	36	45	.....	W	N W	0.7	6.7	.....
25	30.303	42.5	41.1	41.0	48.0	41	47	.....	S W	W S W	1.0	10.0	Hazy.
26	30.196	47.9	46.1	44.0	53.8	45	52	.....	W N W	N N W	2.3	9.0	Variable.
27	30.277	48.4	46.7	42.5	50.6	42	49	.....	N N W	N W	0.7	10.0	Overcast.
28	30.340	45.2	42.9	40.0	47.8	40	45	.....	N N W	N	0.5	10.0	.....
29	30.356	43.2	41.1	35.5	50.5	36	47	.....	N	S E	1.3	8.0	Fine.
Mean	29.840	42.0	41.0	37.6	46.7	37.6	45.4	1.314	S 59 W		1.6	8.1	
Day.	hr.							Day.	hr.				
3	2	Lightning.						19	...	Snow on the ground.			
6	11	New Moon.						20	22	Full Moon.			
...	22	Lowest Barometer 29.396 in.						21	15½	Snow.			
7	13	Moon in Perigee.						22	19	Moon in Apogee.			
12	22	Lunar halo.						23	10	Fog.			
13	2	Moon in 1st Quarter.						28	...	Foggy in the forenoon.			
15	22	Lunar halo.						29	2	Moon in last Quarter.			
16	20	.....						...		Highest Bar. 30.443 in. rain at night.			

MARCH, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^b .	Direction of Wind.			Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Dry.		Wet.			10 ^b .	14 ^b .				
				Min.	Max.	Min.	Max.							
	Inches.	°	°	°	°	°	°	Inches.	10 ^b .	14 ^b .				
1	30.466	39.0	39.2	35.5	43.0	36	42	.....	E N E	N E	1.0	10.0	Overcast.
2	30.441	42.4	41.2	37.0	45.0	37	45	.....	N N E	N	1.8	10.0	.....
3	30.432	40.0	38.9	39.5	42.5	38	41	.....	N E	N N E	2.7	8.0	Variable.
4	30.378	36.9	36.2	35.5	40.0	35	40	.....	N E	N	0.8	10.0	Overcast.
5	30.120	39.3	38.6	34.5	44.5	35	42	.....	N	N	1.2	9.7	Variable.
6	30.018	40.6	39.5	38.5	44.0	38	42	.....	N	N N E	1.8	10.0	Cloudy.
7	30.135	38.0	37.5	34.0	42.5	34	41	0.015	N E	E N E	1.7	6.7	Lowering.	
8	30.168	39.3	39.1	28.0	52.5	29	50	.....	W S W	W	0.5	0.0	Very fine.
9	30.048	39.5	39.8	32.0	45.5	33	45	.....	W N W	N W	1.7	10.0	Fog and mist.
10	29.937	39.8	40.1	30.0	47.0	31	44	.....	N N W	N	0.8	10.0	Overcast.
11	29.893	38.1	36.6	35.5	43.5	36	41	.....	E S E	E	1.3	6.0	Variable.
12	29.822	31.7	30.8	24.5	43.0	25	40	.....	N E	N E	3.3	9.7	Lowering.
13	29.879	33.3	30.1	30.0	42.0	29	40	.....	E N E	E	4.0	0.0	Fine.
14	29.982	33.4	30.6	28.5	45.0	28	42	.....	N E	N E	3.8	2.7	Fair.
15	29.983	32.8	31.2	28.0	43.0	28	42	.....	E	E	2.7	9.0	Variable.
16	29.819	41.9	40.2	33.0	49.0	33	48	.....	E	E	3.0	10.0	Lowering.
17	29.765	43.3	43.0	40.0	43.5	40	45	0.527	E S E	E	0.8	10.0	Foggy.	
18	29.679	45.2	44.9	39.0	48.5	39	47	.....	E	E	1.5	10.0	Dull.
19	29.639	47.8	47.3	42.0	50.0	43	49	0.388	W N W	N W	0.5	10.0	Thin fog.	
20	29.810	45.9	45.1	42.0	51.5	42	49	.....	N	N N W	0.5	9.7	Lowering.
21	29.776	45.0	45.7	40.0	48.0	41	46	0.006	N	N N E	0.3	10.0	Foggy.	
22	29.916	43.8	43.0	34.0	49.0	36	46	.....	N	N N E	0.7	10.0	Lowering.
23	30.019	38.3	38.5	33.0	45.0	33	42	.....	N E	N E	1.3	9.7	.....
24	29.952	36.7	36.3	35.0	43.0	35	41	.....	E	E	1.8	10.0	Dull.
25	29.745	36.9	36.8	34.5	44.0	34	42	.....	N E	E	4.0	10.0	Cloudy.
26	29.731	35.4	35.5	34.0	45.0	34	43	.....	E	E	4.0	5.7	Fair.
27	29.753	37.4	34.4	29.5	52.0	29	48	.....	N E	N E	3.3	4.3	Fine.
28	29.793	35.6	33.5	28.5	52.0	28	48	.....	N N E	N N E	2.0	10.0	Cloudy.
29	30.015	35.2	33.2	27.0	44.5	28	44	.....	E N E	E	2.3	1.0	Very fine.
30	30.086	35.7	34.6	23.0	50.5	24	47	.....	S E	E	0.3	0.0	Fine.
31	29.950	38.6	35.6	22.0	56.0	23	43	.....	S	S S E	1.0	0.0	Very fine.
Mean	29.972	38.8	38.0	32.9	46.3	33.1	44.4	0.936	N 39 E		1.8	7.4		
Day.	hr.							Day.	hr.					
1	10	Highest Barometer 30.487 in.						15	...	Fair forenoon.				
2	15	Drizzling rain.						17	...	Foggy.				
3	...	Fine forenoon.						18	17	Rain.				
4	...	Fog at night.						...	22	Lowest Barometer 29.574 in.				
6	21	New Moon.						20	20	Moon in Apogee.				
7	1	Moon in Perigee.						21	...	Foggy.				
9	...	Thick fog.						...	16	Full Moon.				
12	8½	Snow.						29	15	Moon in last Quarter.				
13	15	Moon in 1st Quarter.						30	...	Thin fog at night.				

APRIL, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^h .	Direction of Wind.		Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Dry.		Wet.							
				Min.	Max.	Min.	Max.						
	Inches.	°	°	°	°	°	°	Inches.	10 ^h .	14 ^h .			
1	29.714	48.1	41.3	27.0	63.2	27	60	.....	S W	S S W	2.5	2.0	Light clouds.
2	29.542	53.4	47.1	45.0	63.0	44	60	0.005	S	S	5.0	8.7	Rain at 15 ^h .
3	29.551	49.9	47.9	42.0	51.8	43	53	.....	S	S	4.3	10.0	Rain all day
4	29.515	48.3	45.3	42.8	52.8	43	53	0.276	S W	W S W	2.8	2.3	Fair.
5	29.319	44.5	42.5	35.0	53.6	35	48	.....	S W	S S W	3.2	7.0	Rain at 14 ^h .
6	29.073	44.1	42.7	39.1	49.1	39	46	0.015	S	S	1.0	9.7	Showery.
7	29.278	46.8	43.8	38.5	55.5	39	49	0.275	W S W	W N W	1.7	6.5	Fair.
8	29.060	47.1	46.0	44.0	50.3	43	50	0.026	S S E	S S W	2.0	9.7	Rain.
9	29.108	44.8	43.8	37.8	52.8	38	52	0.200	S W	W S W	3.0	9.7	Showery.
10	29.083	50.2	48.1	42.8	56.5	43	53	0.075	W S W	W S W	3.0	5.0	Lowering.
11	29.422	50.7	48.5	42.5	56.5	42	52	.....	S W	S	1.7	9.3	Variable.
12	29.309	53.1	50.0	45.4	58.8	45	54	0.510	S W	W S W	1.7	3.0	Lowering.
13	29.471	52.3	49.0	43.1	60.8	43	56	.....	S W	S S W	1.3	8.0	.....
14	29.642	46.2	44.8	39.8	56.6	40	54	0.008	N	N N E	4.0	10.0	Overcast.
15	29.806	44.3	40.7	42.3	53.6	42	55	.....	N E	N E	4.3	6.0	Light clouds.
16	29.989	40.8	37.0	38.0	55.0	37	54	.....	N N E	N N E	4.0	3.7	Lowering.
17	30.007	39.2	36.2	32.6	49.8	32	50	.....	N E	N E	4.0	8.7	.....
18	29.959	44.6	41.2	39.0	54.0	38	48	.....	N N E	N	1.0	7.3	Fair.
19	29.997	44.6	42.9	42.0	49.0	38	46	0.079	N	N N E	1.2	7.3	Variable.
20	30.106	44.0	40.9	37.0	55.0	37	48	.....	N E	N E	0.7	1.0	Fine.
21	30.036	46.0	41.5	31.5	58.0	32	50	.....	N	N E	0.7	3.0	Hazy.
22	29.852	49.6	44.0	40.0	56.8	38	49	.....	S E	E	1.0	8.7	Fair.
23	29.734	50.7	44.9	43.0	57.6	40	50	.....	W	E	0.3	7.3	.....
24	29.699	48.8	45.4	38.6	58.3	39	57	.....	E	E	0.7	6.0	.....
25	29.475	53.8	49.0	37.0	71.0	36	60	.....	N N E	S	0.8	7.0	Heavy clouds.
26	29.295	52.9	50.6	47.5	58.8	47	54	0.365	S W	W	2.7	10.0	Showery.
27	29.336	40.4	40.4	40.7	46.0	40	45	0.615	N E	N E	3.3	10.0	Rain till 16 ^h .
28	29.404	41.1	38.9	32.3	49.0	32	45	0.094	N	N	0.7	8.0	Fair.
29	29.428	43.1	40.5	37.0	...	36	46	0.008	W N W	N W	1.2	9.7	Overcast.
30	29.430	41.3	41.7	37.5	49.9	37	45	.....	W N W	N N E	1.0	8.0	Showery.
Mean	29.554	46.7	43.8	39.4	55.3	38.8	51.4	2.551	S 81 W		2.0	7.2	
Day.	hr.							Day.	hr.				
4	12	Moon in Perigee.						19	...	Fair afternoon.			
5	6	New Moon.						20	9	Full Moon.			
7	22	Rain.						...	10	Highest Barometer 30.134 in.			
8	16	Lowest Barometer 28.961 in.						27	23	Moon in last Quarter.			
11	...	Fair forenoon.						28	22	Rain.			
12	5	Moon in 1st Quarter.						29	...	Drizzling rain at night.			
17	3	Moon in Apogee.						30	...	Showers of hail and rain.			

MAY, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^h .	Direction of Wind.			Estimated Force of Wind.	Amount of Cloud.	Weather.	
		Air.	Evap.	Dry.		Wet.									
				°	°	°	°		°	°	Inches.				10 ^h .
1	29.507	37.1	37.1	34.5	44.0	34	43	0.015	N E	N N E	3.5	9.7	Overcast.		
2	29.830	38.5	35.6	30.3	48.5	30	42	.....	N	N N W	1.0	9.0	Lowering.	
3	29.925	40.2	39.5	32.8	52.0	32	44	.....	N	N	2.2	6.7	.....	
4	29.970	41.2	38.5	38.5	48.0	34	42	.....	N	N	1.5	6.7	.....	
5	29.919	39.4	36.4	30.0	48.5	30	42	.....	N	N N E	1.7	9.3	.....	
6	29.669	42.7	39.0	37.5	49.0	36	44	.....	S E	S E	3.7	10.0	Overcast.	
7	29.367	40.8	39.0	40.5	48.5	38	45	0.081	N E	N	4.0	10.0	Showery.		
8	29.789	42.7	40.2	38.5	50.0	36	45	0.025	N	N	3.8	10.0	Cloudy.		
9	30.029	44.2	42.2	39.5	52.0	38	50	.....	N	N	1.2	6.7	.....	
10	29.862	51.7	47.7	41.5	64.8	40	57	.....	N N W	N	1.7	3.0	Fair.	
11	29.707	54.3	50.0	44.5	67.5	44	59	.....	N E	N	1.0	5.3	.....	
12	29.560	52.7	50.8	46.0	62.0	44	57	.....	N N E	N N W	1.2	10.0	Overcast.	
13	29.465	51.8	50.8	50.5	54.7	48	53	0.270	N	W	1.0	8.0	Drizzle.		
14	29.354	49.4	47.5	42.5	55.0	42	52	0.305	S S W	S W	2.8	9.0	Showery.		
15	29.287	48.8	46.7	49.5	54.0	43	50	0.030	W S W	W S W	1.3	10.0	.....	
16	29.337	50.8	47.9	41.5	62.0	41	54	0.050	N W	N N W	0.8	9.7	Cloudy.		
17	29.447	51.0	47.7	45.0	57.0	44	54	0.013	S S W	W S W	3.2	9.0	Hail storms.		
18	29.321	49.0	46.3	40.5	57.0	40	52	0.190	S W	W S W	4.0	9.0	Showery.		
19	29.608	51.0	46.5	43.0	59.5	42	54	0.135	W	W N W	2.7	6.0	Lowering.		
20	29.869	53.8	49.3	43.0	66.5	43	58	.....	W	S W	0.7	7.0	Fine.	
21	29.708	56.9	51.7	39.5	68.5	39	59	.....	S W	S S W	0.7	10.0	Cloudy.	
22	29.451	55.7	53.2	52.0	62.5	52	58	0.056	S S W	S W	0.0	6.7	.....	
23	29.347	53.4	50.7	43.0	63.0	43	58	0.121	S	S S W	1.0	9.7	Showery.		
24	29.310	52.6	50.8	47.5	60.0	47	57	0.160	S W	S W	1.0	10.0	Hail and rain.		
25	29.471	54.9	53.4	48.0	63.0	48	58	0.480	S S W	W N W	1.0	7.3	Overcast.		
26	29.671	55.3	53.1	49.0	64.5	48	58	0.007	S W	S W	2.7	9.7	Showery.		
27	29.572	56.2	50.7	47.5	63.0	47	58	1.320	S W	S W	0.8	10.0	Cloudy.		
28	29.438	55.0	52.8	49.0	65.5	49	59	0.496	W N W	N	0.7	6.3	Showery.		
29	29.760	49.6	48.4	44.0	54.5	44	52	0.580	N N E	N N E	1.7	10.0	Overcast.		
30	29.969	47.3	43.1	40.5	54.0	40	50	.....	E N E	N E	1.2	10.0	.....	
31	29.739	44.8	43.0	43.0	51.0	40	50	.....	N E	N	2.0	10.0	Drizzle.	
Mean	29.621	48.7	46.3	42.2	57.1	41.2	52.1	4.334	N 47 W			1.7	8.5		
Day.	hr.							Day.	hr.						
2	19	Moon in Perigee.						20	0	Full Moon.					
4	0	Highest Barometer 30.017 in.						21	20	Rain.					
...	15	New Moon.						22	13	Rain.					
6	21	Rain.						...	20	Summer lightning.					
11	21	Moon in 1st Quarter.						24	...	Rain and hail.					
14	14	Hail.						26	22	Rain.					
...	18	Moon in Apogee.						27	6	Moon in last Quarter.					
17	12	Hail.						28	19	A thunder storm.					
18	12	Lowest Barometer 29.214 in.													

JUNE, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^h .	Direction of Wind.		Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Dry.		Wet.			10 ^h .	14 ^h .			
				Min.	Max.	Min.	Max.						
	Inches.	°	°	°	°	°	°	Inches.	10 ^h .	14 ^h .			
1	29.538	49.9	48.5	45.5	60.5	44	55	0.226	W	W N W	1.0	6.7	Drizzle.
2	29.655	54.1	50.1	41.0	67.3	41	58	.....	W	W S W	0.7	3.3	Fine.
3	29.799	58.2	52.8	44.9	72.0	45	62	.....	W N W	W N W	0.8	1.7	.....
4	29.934	57.9	53.3	46.0	69.0	48	63	.....	W	W	0.7	4.7	.....
5	29.990	54.3	48.4	45.9	63.6	47	59	.....	N	N N E	1.7	9.0	.....
6	30.052	55.7	50.4	47.8	66.0	47	58	.....	N	N N W	0.7	7.7	Lowering.
7	30.101	57.3	53.6	48.5	66.6	48	61	.....	S W	W	1.0	9.7	Fair.
8	30.033	59.7	58.0	52.8	69.2	49	66	.....	W	S W	1.5	9.3	Cloudy.
9	29.929	61.2	57.9	56.7	70.0	56	64	.....	S W	S W	1.0	8.0	Sultry.
10	29.922	57.7	53.2	46.0	72.5	46	62	.....	W S W	N W	0.8	4.0	Fine.
11	29.887	57.5	52.2	45.0	71.6	45	62	.....	S S E	S W	0.7	8.3	Rain, cloudy.
12	29.700	55.1	53.5	49.0	62.0	48	62	.....	S W	S W	2.0	10.0	Dull, drizzle.
13	29.510	58.5	57.4	56.0	63.8	56	62	0.384	S W	S W	2.7	10.0	Gentle rain.
14	29.414	54.5	50.5	51.3	62.0	51	56	0.326	W	W S W	2.7	2.3	Lowering.
15	29.780	53.5	50.0	43.5	66.3	44	57	.....	N	W	1.0	6.0	Fair.
16	29.929	55.3	50.8	43.0	68.5	43	59	.....	S W	S W	2.0	5.0	Fine.
17	29.715	57.0	52.8	47.5	67.3	47	61	0.067	W S W	N W	0.7	9.3	Showery.
18	29.696	54.1	51.0	42.0	66.0	44	58	.....	S W	N W	0.7	8.3	Variable.
19	29.393	54.1	53.4	49.0	66.3	48	64	0.209	S	S	1.7	9.0	Showery.
20	29.464	53.5	52.1	50.2	61.3	50	58	1.267	N	N N W	1.0	9.7	.....
21	29.844	51.8	50.5	43.3	63.0	42	58	0.021	W S W	W	3.7	9.7	Cloudy.
22	29.771	58.8	56.5	54.0	65.0	51	60	0.053	W	W	2.0	7.0	.....
23	29.969	58.1	55.1	52.0	66.0	52	60	.....	N W	N W	0.7	9.7	Fair.
24	30.019	59.2	57.3	49.0	69.0	49	65	.....	Var.	W	2.7	10.0	Showery.
25	30.025	66.5	62.0	55.0	75.5	54	69	.....	N N W	N W	1.5	6.3	Overcast.
26	30.056	63.4	64.2	54.0	79.8	54	74	.....	W	N W	0.5	7.3	Fine.
27	29.947	71.3	67.3	61.3	82.0	61	74	.....	S W	W	0.8	6.0	.....
28	29.918	61.1	52.6	55.0	72.5	55	67	.....	N	N N W	1.7	5.3	.....
29	30.070	56.5	52.8	46.0	71.0	61	63	.....	N	N W	0.7	1.3	.....
30	29.908	58.4	54.6	51.5	72.5	51	63	.....	N N W	N N W	2.7	7.0	Variable.
Mean	29.831	57.6	54.0	49.1	68.3	48.7	61.9	2.553	N S W		1.2	7.1	
Day.	hr.							Day.	hr.				
3	0	New Moon.						19	16	A thunder storm till 21 ^h .			
7	8	Highest Barometer 30.132 in.						20	11	Thunder.			
10	14	Moon in 1st Quarter.						21	...	Light fall p.m.			
11	12	Moon in Apogee.						25	7	Moon in Perigee.			
14	0	Lowest Barometer 29.287 in.						...	10	Moon in last Quarter.			
18	12	Full Moon. Drizzling rain p.m.						30	...	Fine forenoon.			

JULY, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^h .	Direction of Wind.		Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Dry.		Wet.			10 ^h .	14 ^h .			
				Min.	Max.	Min.	Max.						
	Inches.	°	°	°	°	°	°	Inches.					
1	30.011	53.8	48.7	45.5	65.7	44	56	.....	N N E	N	1.3	2.7	Fine.
2	30.013	54.5	50.0	42.0	69.0	42	59	.....	S	N	0.8	3.7	.....
3	30.026	56.6	51.4	45.0	69.5	45	60	.....	N N W	E N E	0.7	5.0	Lowering.
4	29.912	59.6	53.5	47.5	74.0	48	63	.....	N N E	N N W	1.2	5.3	Hazy & damp.
5	29.856	61.5	55.0	53.5	73.0	51	62	.....	N W	W	1.8	8.0	Fine.
6	29.827	60.5	55.8	54.5	70.5	53	69	.....	N W	N W	2.3	9.3	Showery.
7	29.453	57.4	57.1	54.5	63.0	52	60	0.103	S W	S W	3.8	10.0	.....
8	29.316	49.8	48.9	46.5	58.8	45	54	0.097	W N W	N	4.0	9.7	.....
9	29.608	53.2	49.0	43.0	63.5	43	57	0.166	N N W	W	1.7	7.3	Lowering.
10	29.742	56.8	53.4	44.5	69.0	45	61	.....	W	W	0.7	9.3	.....
11	29.737	61.0	56.2	54.4	70.5	53	65	0.004	S W	W	2.7	10.0	Cloudy.
12	29.659	62.2	59.3	52.0	68.5	57	65	0.005	S W	S W	3.0	9.7	Showery.
13	29.706	58.8	54.8	50.5	69.5	50	62	0.083	S W	W	0.7	10.0	Lowering.
14	29.769	60.9	57.8	52.5	69.0	52	67	.....	S	S W	0.8	0.8	Cloudy.
15	29.749	64.4	58.0	55.5	73.5	56	65	.....	S	S W	1.7	6.7	Fine.
16	29.676	57.9	54.1	55.5	64.5	55	58	0.142	W	W	3.0	7.0	Showery.
17	29.919	56.5	52.0	47.5	67.5	47	61	.....	W	W	1.5	6.3	Fine.
18	29.840	59.2	56.0	51.0	70.5	51	66	.....	W S W	S W	1.3	9.7	.....
19	29.835	64.1	60.1	53.5	75.5	53	69	.....	S W	W	2.7	8.7	Cloudy.
20	29.803	66.0	62.0	61.5	76.0	61	67	.....	N W	N N W	1.0	10.0	Drizzle.
21	29.816	66.2	62.3	59.0	76.0	59	75	.....	N N W	W	0.3	10.0	Cloudy.
22	29.710	68.7	64.3	61.5	78.0	61	69	.....	W	S	0.3	4.7	Lowering.
23	29.504	69.6	63.2	56.0	83.0	57	73	.....	S	S S W	1.3	9.7	Fair.
24	29.437	64.0	61.3	58.0	73.5	58	67	.....	W S W	W	1.7	10.0	Cloudy.
25	29.655	60.6	57.2	53.0	74.0	52	62	0.006	W	W	1.7	4.3	Fine.
26	29.837	59.7	55.7	50.5	74.0	50	69	.....	W	W	1.2	6.3	.....
27	29.908	57.8	56.3	49.5	67.5	49	64	.....	W	W S W	1.0	10.0	Showery.
28	29.835	62.1	62.5	53.5	75.5	54	66	0.015	W	W	0.5	6.0	Fine.
29	29.978	69.3	62.0	51.0	80.0	51	67	.....	W	W S W	0.8	4.8	.....
30	30.069	69.3	65.7	61.0	82.0	61	71	.....	W	W S W	0.7	5.3	.....
31	30.051	68.6	64.2	55.6	85.0	56	73	.....	N E	N	0.2	0.3	.....
Mean	29.784	60.9	57.0	52.4	71.9	51.9	64.3	0.621	W		1.6	7.4	
Day.	hr.							Day.	hr.				
2	10	New Moon.						17	22	Full Moon.			
8	5	Lowest Barometer 29.109 in.						21	6	Moon in Perigee.			
9	6	Moon in Apogee.						23	22	Summer lightning.			
10	7	Moon in 1st Quarter. Rain.						24	15	{ Moon in last Quarter. Drizzling			
14	17	Rain.								{ rain in the afternoon.			
15	23	Lightning.						30	10	Highest Barometer 30.096 in.			
16	15	Hail.						31	21	New Moon.			

AUGUST, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^h .	Direction of Wind.			Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Dry.		Wet.								
				Min.	Max.	Min.	Max.							
	Inches.	°	°	°	°	°	°	Inches.	10 ^h .	14 ^h .				
1	29.965	71.2	64.4	57.5	86.5	57	73	.....	N E	E	0.5	2.3	Fine.
2	29.880	73.1	65.5	60.5	89.0	60	74	.....	E	E	0.2	3.3	.....
3	29.873	71.3	63.8	58.5	87.5	58	73	.....	N N E	E	0.3	0.0	.....
4	29.973	68.8	62.3	57.0	83.0	57	72	.....	N	E	0.7	3.3	.....
5	30.045	64.5	59.2	53.0	79.5	51	69	.....	N E	N E	1.0	0.0	.....
6	29.973	59.5	56.1	48.5	77.0	48	65	.....	N N E	N	0.3	0.0	.....
7	29.786	64.9	57.3	48.5	83.0	48	69	.....	Calm	W	0.5	0.7	.....
8	29.524	64.4	58.8	53.5	75.5	53	67	.....	S	W	0.3	6.7	Fair.
9	29.546	65.3	62.8	59.0	77.8	58	72	0.250	S	S W	1.5	7.0	Rain.	
10	29.627	71.7	60.6	58.5	83.0	58	75	0.140	S	S	0.7	8.7	Fair.	
11	29.615	69.3	60.1	60.5	80.0	60	72	.....	W	W S W	1.0	6.3	Lowering.
12	29.718	66.2	61.8	57.0	77.0	57	68	.....	W S W	S W	1.5	6.0	Heavy clouds.
13	29.749	67.4	61.8	57.5	80.3	57	71	.....	S	S	1.3	8.5	Lowering.
14	29.673	64.4	60.2	60.0	74.0	59	66	0.075	S W	W	2.2	4.7	Showery.	
15	29.745	61.5	57.9	57.0	72.5	56	68	0.203	W S W	W	2.3	7.7	Fair.	
16	29.721	59.8	55.1	46.5	73.0	46	63	.....	Calm	E	0.5	9.7	Variable.
17	29.392	55.9	55.1	58.0	62.0	56	62	0.285	N N E	N	2.7	10.0	Cold rain.	
18	29.290	54.3	51.8	52.0	61.0	52	60	0.872	N N E	N E	2.3	10.0	Chilling wind.	
19	29.376	56.6	54.6	53.5	63.5	52	62	0.047	N N E	N N E	0.8	10.0	Wet, cloudy.	
20	29.322	57.7	55.8	54.5	64.0	54	63	0.398	E N E	Var.	2.0	10.0	Wet, cold.	
21	29.064	60.5	58.0	56.5	65.0	56	63	0.715	S	S E	1.7	8.0	Variable.	
22	29.534	56.2	53.2	52.5	61.6	52	61	0.070	N N W	N	1.7	8.0	.....
23	29.935	52.7	49.6	42.0	62.5	42	59	0.025	W	N N W	0.0	7.7	.....
24	29.899	57.8	55.9	50.5	64.5	50	63	.....	W S W	W	1.3	10.0	Overcast.
25	29.749	61.7	59.4	56.0	65.0	55	64	0.008	W	W	3.0	10.0	.....
26	29.741	59.6	54.6	52.6	67.3	51	65	0.064	N E	N E	2.3	7.3	Light showers.	
27	29.704	63.2	58.7	56.5	71.5	55	67	.....	E	E N E	1.3	9.7	Overcast.
28	29.589	59.9	57.1	53.0	66.5	52	66	.....	S W	W S W	2.0	7.3	Cloudy.
29	29.769	61.0	56.5	55.5	68.5	53	65	0.072	W	W	2.0	7.0	Lowering.	
30	29.919	57.7	54.0	48.0	68.0	48	62	.....	S	W S W	1.0	9.0	.....
31	29.731	60.9	56.1	56.5	69.0	56	61	.....	W	W	0.8	7.0	Fair.
Mean	29.691	62.7	58.4	54.5	72.9	54.0	66.5	3.224	N 67 W		1.3	5.8		
Day.	hr.							Day.	hr.					
5	5	Highest Barometer 30.076 in.						21	4	{ Lowest Barometer 28.924 in.; wet				
6	0	Moon in Apogee.								{ afternoon.				
7	22	Summer lightning.						22	21	Moon in last Quarter; wet forenoon.				
9	0	Moon in 1st Quarter.						23	...	Dull afternoon.				
10	22	Lightning.						28	15	Rain.				
16	6	Full Moon; afternoon overcast.						30	11	New Moon.				
18	1	Moon in Perigee.												

SEPTEMBER, 1856.

Day.	Mean Pressure.	Mean Temperature.		Self-registering Thermometers.				Rain at 10 ^h .	Direction of Wind.		Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Dry.		Wet.							
				Min.	Max.	Min.	Max.						
	Inches.	°	°	°	°	°	°	Inches.	10 ^h .	14 ^h .			
1	29.641	53.7	49.5	44.0	64.0	44	56	.....	W	W	1.0	5.7	Fine.
2	29.816	54.1	49.5	48.0	63.0	47	58	.....	N	N	1.0	4.3	.....
3	30.072	53.5	48.9	41.5	68.0	42	60	.....	N	W	0.3	4.3	.....
4	29.965	55.5	51.8	42.0	67.5	42	68	.....	S	S	1.3	3.7	.....
5	29.773	53.1	53.0	41.0	65.5	41	59	.....	E	E N E	1.7	4.7	Lowering.
6	29.577	56.0	52.6	46.0	65.0	45	59	.....	E N E	E	0.7	10.0	Fine.
7	29.606	57.3	55.1	52.0	63.0	51	58	0.147	Calm	Calm	0.0	6.3	Showery.
8	29.728	55.7	52.2	50.0	67.0	49	62	0.230	Calm	W S W	0.2	4.7	Fine.
9	29.700	56.6	53.7	43.0	68.5	44	63	.....	S	S	0.7	6.7	Hazy.
10	29.750	62.9	59.1	53.5	71.0	53	66	.....	N E	E S E	0.8	6.7	Light clouds.
11	29.950	60.2	57.1	56.0	66.0	55	62	.....	N	N E	2.0	9.0	Fair.
12	29.993	57.8	54.4	52.0	64.0	51	59	.....	N N E	N E	0.7	8.7	.....
13	29.905	54.7	52.1	52.0	61.0	51	56	.....	N W	N W	1.7	7.7	Variable.
14	30.008	51.2	48.2	42.5	62.0	42	59	0.055	N	N W	1.0	5.0	Fair.
15	30.005	57.2	54.7	47.0	67.0	47	64	.....	W S W	W	3.2	10.0	Overcast.
16	29.969	58.4	53.1	54.0	63.0	51	57	.....	N W	W	2.0	4.0	Fine.
17	29.742	58.4	54.8	49.0	65.5	48	61	.....	W S W	S W	3.3	7.7	Lowering.
18	29.676	54.7	50.5	50.1	58.5	49	52	0.108	N W	W	1.0	7.0	Rain at 1 a. m.
19	29.745	48.5	46.1	41.0	56.5	41	52	.....	N W	N	2.0	8.3	Fair.
20	29.913	47.2	44.2	42.0	55.0	41	51	0.270	N	N	2.5	7.7	Lowering.
21	29.759	50.4	47.3	40.0	58.5	39	56	.....	S W	W S W	1.3	8.3	.....
22	29.222	53.3	51.3	48.0	62.0	47	57	0.134	W S W	W	2.5	9.7	Variable.
23	28.992	52.6	50.6	49.5	57.0	48	54	0.508	W S W	W S W	2.3	9.0	Rain.
24	28.966	53.8	51.8	48.0	62.0	47	57	0.154	W	S	1.0	3.7	Fair.
25	29.119	51.5	49.3	45.0	59.0	45	55	.....	W	W	2.5	9.0	Showery.
26	29.341	50.7	48.6	41.5	59.0	42	55	0.194	S W	S W	2.0	6.7	Lowering.
27	28.896	53.1	51.4	51.0	54.0	48	55	0.314	E	Calm	1.7	10.0	Stormy; rain.
28	28.696	52.0	51.2	47.5	53.7	47	54	0.685	W	W	1.7	9.7	Rain all day.
29	29.031	53.6	51.5	50.5	59.0	50	56	0.368	W	W	2.2	9.7	Variable.
30	29.451	54.0	51.4	50.0	59.5	49	56	.....	W	W	1.7	6.3	Fair.
Mean	29.600	54.4	51.6	47.3	62.2	46.6	57.8	3.167	N 76 W		1.5	7.2	
Day.	hr.							Day.	hr.				
1	20	Summer lightning.						22	16½	A violent gust of wind, which lasted about 5 ^m . It was felt at Glastonbury (distant about 76 miles) between 13 ^h and 14 ^h , and was traced as far as Elsfield, a village 3 or 4 miles East of this station. Wet afternoon.			
2	15	Moon in Apogee.						28	6				
3	8	Highest Barometer 30.104 in.						29	4				
7	16	Moon in 1st Quarter.						...	23				
13	...	Showery afternoon.											
14	14	Full Moon.								Lowest Barometer 28.611 in.			
15	8	Moon in Perigee.								New Moon.			
19	18	Thunder and lightning with hail.								Moon in Apogee.			
21	6	Moon in last Quarter. Rain 17 ^h .											

OCTOBER, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^h .	Direction of Wind.		Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Min.	Max.	Min.	Max.						
	Inches.	°	°	°	°	°	°	Inches.	10 ^h .	14 ^h .			
1	29.628	50.6	48.7	43.0	60.5	43	57	.....	S	S W	1.0	7.0	Fine.
2	29.572	54.0	53.1	51.0	60.0	50	59	.....	S S E	S	1.3	9.7	Drizzle.
3	29.582	56.8	55.0	51.0	63.0	50	61	0.104	S	S	2.7	9.7	Dull.
4	29.481	58.3	56.5	56.5	65.0	56	63	0.570	S S W	W S W	2.3	10.0	Showery.
5	29.645	57.1	55.0	54.5	62.0	54	61	0.316	W S W	W S W	0.7	6.7	.....
6	29.777	50.2	49.1	43.5	57.0	43	57	0.014	N	N E	2.3	10.0	Damp fog.
7	29.759	52.9	51.8	48.0	54.0	48	55	0.222	N E	N' N E	0.8	10.0	Overcast.
8	29.813	51.4	50.1	51.5	53.5	51	54	0.256	N	N	1.3	10.0	.....
9	30.000	50.8	48.4	45.5	55.5	45	54	0.021	N	N N E	1.0	10.0	.....
10	30.044	51.4	50.0	50.0	56.0	49	55	0.032	N	N	0.0	10.0	Foggy.
11	29.885	53.3	52.2	47.0	57.5	47	58	0.060	N	N N E	0.5	10.0	Rain a.m.
12	29.913	54.3	52.7	46.0	61.0	46	59	0.140	N N E	N N E	0.0	6.7	Fair p.m.
13	30.001	54.4	47.2	40.0	60.0	40	57	0.007	Calm.	N	0.3	6.7	Hazy.
14	29.717	54.1	52.8	49.0	57.5	49	57	.....	E N E	E S E	1.0	10.0	Overcast.
15	29.304	52.4	50.1	50.0	55.0	49	54	0.371	S S W	W S W	3.0	7.3	Heavy rain.
16	29.883	52.9	50.2	46.5	58.5	45	56	0.058	W	W	1.3	9.7	Dull.
17	30.144	50.0	48.4	44.0	57.0	44	54	0.009	W	W	0.7	10.0	Overcast. Fog.
18	30.148	50.6	48.6	42.5	56.5	42	54	.....	W	W	0.3	6.0	Fine.
19	30.121	46.3	45.3	36.0	57.5	36	56	.....	W	N N E	0.8	7.0	Variable.
20	30.029	53.4	51.5	42.0	58.0	42	56	.....	N	N E	0.7	10.0	.....
21	30.045	52.2	51.0	50.0	60.7	49	57	.....	N E	E S E	0.7	4.7	.....
22	30.132	51.2	50.1	38.0	63.0	39	60	.....	S	S E	1.7	3.3	Fog & sunshine.
23	30.174	51.6	51.5	50.5	55.0	50	55	0.006	Calm.	S W	0.2	10.0	Foggy.
24	30.290	51.0	48.9	47.0	55.0	47	52	0.012	N E	N E	1.7	6.3	Fair.
25	30.315	46.3	43.8	39.0	53.5	39	50	.....	N E	N E	0.5	6.7	.....
26	30.256	42.8	41.4	35.5	51.5	36	49	.....	N E	E N E	0.5	6.3	.....
27	30.201	43.9	41.5	36.0	52.0	36	49	.....	N E	N E	0.8	1.0	Fine.
28	30.151	40.4	39.7	35.0	49.5	34	47	.....	N E	N E	0.0	6.7	Overcast.
29	30.056	36.0	35.9	29.5	49.0	30	50	0.003	Calm.	E N E	0.2	6.7	Hazy.
30	29.970	46.9	46.3	33.5	55.0	33	56	0.008	N E	S	1.5	9.7	Cloudy.
31	29.962	52.4	51.6	48.0	58.5	48	57	0.165	Calm.	N	0.7	6.3	Dull.
Mean	29.936	50.3	48.8	44.5	57.0	44.4	55.5	2.374	N 19 E		1.0	7.9	
Day.	hr.	Alteration being made in the position of the Thermographs. The tempera- ture of air and evaporation deduced from eye observations.						Day.	hr.				
1—2	...							14	...				
5	...	Lightning 18 ^h to 22 ^h .						16	...	Foggy.			
6	...	Fog till noon. Lightning at 15 ^h 30 ^m .						19	...	Wet forenoon.			
7	6	Moon in last Quarter.						20	18	Foggy forenoon.			
8	0	Lightning.						21	...	Moon in last Quarter. Dull forenoon.			
12	...	Foggy.						23	...	Dull forenoon.			
13	14	Lowest Barom. 29.109 in. Foggy a.m.						24	22	Dense fog.			
...	19	Moon in Perigee. Full Moon 23 ^h .						27	1	Highest Barometer 30.346 in.			
								28	22	Moon in Apogee.			
								29	...	New Moon.			
										Thick fog till noon.			

NOVEMBER, 1856.

Day.	Mean Pres- sure.	Mean Tempera- ture.		Self-registering Ther- mometers.				Rain at 10 ^h .	Direction of Wind.		Estimated Force of Wind.	Amount of Cloud.	Weather.
		Air.	Evap.	Dry.		Wet.							
				Min.	Max.	Min.	Max.						
	Inches.	°	°	°	°	°	°	Inches.	10 ^h .	14 ^h .			
1	30.186	48.7	47.8	41.5	52.5	42	53	.....	Calm.	Calm.	0.3	10.0	Damp fog.
2	30.141	45.6	45.8	42.5	50.0	42	49	0.005	Calm.	Calm.	0.0	9.3	Variable.
3	30.033	47.0	45.6	39.0	51.0	39	50	.....	Calm.	Calm.	0.2	8.3	.....
4	30.073	44.6	43.1	42.0	51.0	42	49	.....	Calm.	W	0.2	5.7	Fine.
5	30.231	43.4	41.9	37.5	48.5	38	48	.....	W N W	Var.	0.3	6.7	Overcast.
6	30.329	36.1	34.5	29.5	44.5	29	43	.....	Var.	N E	1.2	1.7	Fair.
7	30.433	41.4	39.6	33.0	48.0	33	47	.....	N E	?	0.7	10.0	Overcast.
8	30.167	42.7	41.3	40.0	45.0	40	45	.....	N	W	1.2	6.7	Dull and wet.
9	29.888	42.8	41.3	34.0	48.0	34	48	0.188	W N W	W	0.7	7.0	Variable.
10	29.398	41.5	38.2	35.5	41.5	31	42	.....	N	Var.	1.8	5.7	Fair.
11	29.271	35.7	33.4	29.5	42.0	28	41	.....	N W	N W	2.3	8.3	.....
12	29.578	39.5	36.7	36.0	43.5	35	41	0.026	N	N	2.7	9.0	Fair a.m.
13	29.700	40.0	36.8	34.5	44.5	33	45	.....	N W	W N W	1.3	6.7	.....
14	29.756	38.4	35.1	32.5	40.0	29	39	0.037	N	N	1.7	0.7	Hazy.
15	29.865	38.3	35.6	31.0	45.5	29	44	.....	W	W	1.3	8.7	Fair.
16	30.008	35.6	34.8	27.0	41.0	27	40	0.070	N	N	0.3	5.3	.....
17	29.990	36.4	35.6	26.0	44.0	26	44	0.012	N	Calm.	0.0	8.5	Variable.
18	29.954	44.2	42.8	36.0	48.5	36	48	0.084	W	N W	0.7	1.2	Hazy.
19	29.943	44.6	42.9	36.0	51.0	36	49	0.042	W	N W	1.0	8.7	Showery, hazy.
20	29.906	49.6	47.5	44.0	51.8	43	51	0.006	W N W	N	2.0	10.0	Overcast.
21	30.058	51.1	49.4	46.5	52.0	46	52	0.017	W N W	W N W	0.8	10.0	Damp fog.
22	30.065	50.5	48.1	47.5	55.0	46	53	.....	W	W	1.5	8.0	Fair.
23	29.946	52.8	49.8	47.5	55.7	46	53	.....	W	W	2.0	10.0	Cloudy.
24	29.707	51.1	47.2	50.0	56.0	48	54	.....	Var.	W	2.7	9.0	Fair.
25	29.837	37.3	34.5	36.0	37.0	33	37	0.014	N	N	1.3	6.7	Hazy.
26	29.531	37.6	36.8	30.5	51.5	31	50	0.454	W	N N E	1.0	8.0	Showery.
27	29.496	41.3	40.4	35.5	49.0	36	48	0.055	W	N W	1.2	4.5	Fair.
28	29.552	36.2	34.7	32.0	39.5	32	39	.....	W	Calm.	0.5	7.3	Overcast.
29	29.561	30.7	30.4	25.0	36.5	25	36	.....	W	W	0.7	0.2	Fine.
30	29.676	30.2	30.1	25.0	34.5	25	35	.....	N W	N W	1.7	0.0	.....
Mean	29.876	41.7	40.0	36.1	46.6	35.6	45.8	0.950	N 50 W		1.1	6.7	
Day.	hr.							Day.	hr.				
2	...	Foggy forenoon.						11	6	Lowest Barometer 29.237 in.			
3	...	Dull afternoon.						12	9	Full Moon. Damp afternoon.			
4	22	Thick fog.						13	...	Damp afternoon.			
5	17	Moon in 1st Quarter.						19	11	Moon in last Quarter.			
7	10	Highest Barometer 30.460 in.						23	12	Moon in Apogee.			
9	...	Damp afternoon.						26	1	Snow and rain.			
11	6	Moon in Perigee.						27	16	New Moon.			

SUMMARY OF THE MONTHLY RESULTS IN 1856.

Month.	Barometer.			Thermometers.						Rain.		
	Nor- mal Valne.	Pro- bable Excess.	Excess in 1856.	Dry.			Wet.			Nor- mal Valne.	Pro- bable Excess.	Excess in 1856.
				Nor- mal Value.	Pro- bable Excess.	Excess in 1856.	Nor- mal Value.	Pro- bable Excess.	Excess in 1856.			
	Inches.	Inches.	Inches.	°	°	°	°	°	°	Inches.	Inches.	Inches.
January.	29.721	±.107	-.317	37.7	± 2.6	+ 2.0	36.5	± 3.4	+ 2.1	1.99	± 0.75	+ 0.95
February	.700	.113	+ .140	38.6	2.4	+ 3.4	36.9	2.8	+ 4.1	1.83	.69	- 0.52
March...	.690	.118	+ .282	41.4	2.1	- 2.6	38.7	2.1	- 0.7	1.81	.68	- 0.87
April....	.700	.110	- .146	46.0	1.8	+ 0.7	42.6	1.7	+ 1.2	1.94	.73	+ 0.61
May .....	.733	.085	- .112	52.4	1.7	- 3.7	49.0	1.7	- 2.7	2.17	.81	+ 2.16
June.....	.725	.059	+ .106	58.6	1.6	- 1.0	55.2	1.7	- 1.2	2.34	.88	+ 0.21
July .....	.721	.047	+ .063	61.4	1.4	- 0.5	57.7	1.4	- 0.7	2.51	.94	- 1.89
August..	.730	.059	- .039	59.7	1.3	+ 3.0	55.8	0.9	+ 2.6	2.63	.99	+ 0.59
Sept. ....	.718	.084	- .118	55.1	1.3	- 0.7	51.6	0.9	0.0	2.67	1.00	+ 0.50
October.	.684	.104	+ .252	49.3	1.7	+ 2.0	46.8	1.5	+ 2.0	2.63	0.99	- 0.26
Nov.....	.677	.111	+ .199	43.5	2.1	- 1.8	41.9	2.5	- 1.9	2.47	.93	- 1.52
Dec. ....	.707	.107	- .123	39.3	2.5	+ 1.1	38.0	3.4	+ 2.0	2.23	0.84	- 0.18
Year	29.709	±.028	+ .016	48.6	± 0.6	+ 0.1	45.9	± 0.7	+ 0.5	27.22	± 3.09	- 0.18

THE EXTREMES AND RANGE OF THE BAROMETER IN 1856.

Month.	Normal Maximum.	Excess in 1856.	Normal Minimum.	Excess in 1856.	Normal Range.	Probable Excess.	Excess in 1856.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
January	30.281	+ 0.234	28.966	- 0.255	1.315	± 0.196	+ 0.489
February.....	.350	+ .093	29.016	+ .380	1.334	.241	- .287
March.....	.313	+ .174	.087	+ .487	1.227	.264	- .313
April.....	.228	- .094	.148	- .187	1.082	.213	+ .093
May .....	.130	- .113	.201	+ .013	0.928	.153	- .126
June .....	.032	+ .100	.287	.000	0.749	.120	+ .100
July.....	.025	+ .071	.324	- .215	0.698	.148	+ .286
August .....	.165	- .089	.244	- .320	0.956	.195	+ .231
September ...	.310	- .206	.063	- .452	1.248	.220	+ .246
October .....	.294	+ .052	28.926	+ .183	1.368	.227	- .131
November ....	.182	+ .278	.903	+ .324	1.280	.195	- .046
December ....	.173	+ .244	.931	- .248	1.242	.180	+ .492
Year	30.207	+ 0.062	29.091	- 0.024	1.116	± 0.052	+ 0.088

EXTREMES AND RANGE OF THERMOMETER.

Month.	Normal Max.	Excess in 1856.	Normal Min.	Excess in 1856.	Normal Monthly Range.	Probable Excess.	Excess in 1856.	Normal Daily Range.	Probable Excess.	Excess in 1856.
	°	°	°	°	°	°	°	°	°	°
Jan.	53.0	+ 0.4	22.2	- 0.9	30.8	+ 4.4	+ 1.3	9.7	+ 1.0	- 1.0
Feb.	54.0	+ 2.6	22.8	+ 6.1	31.2	4.7	- 3.5	11.8	1.6	- 2.7
March....	59.0	- 3.0	23.9	- 1.9	35.1	4.6	- 1.1	15.3	2.0	- 1.9
April	65.9	+ 5.1	26.6	+ 0.4	39.3	4.1	+ 4.7	18.1	1.9	- 2.2
May	72.7	- 4.2	32.2	- 2.0	40.4	3.7	- 2.2	18.2	1.5	- 3.3
June	78.0	+ 4.0	39.5	+ 1.5	38.5	3.6	+ 2.5	17.0	1.3	+ 2.2
July	80.6	+ 4.4	44.0	- 2.0	36.6	3.7	+ 6.4	16.7	1.4	+ 2.8
August..	78.6	+10.4	42.6	- 0.6	36.0	3.6	+11.0	17.4	1.5	+ 1.0
Sept.	72.1	- 1.1	36.6	+ 3.4	35.5	3.3	- 4.5	16.7	1.5	- 1.8
October..	64.6	+ 0.4	29.7	- 0.2	34.9	3.1	+ 0.6	14.0	1.1	- 1.5
Nov.	59.1	- 3.1	24.9	+ 0.1	34.2	3.1	- 3.2	11.1	0.7	- 0.6
Dec.	55.1	+ 3.9	22.5	- 6.5	32.6	3.7	+10.4	9.6	0.6	+ 1.0
Year.....	66.0	+ 1.65	30.6	- 0.22	35.4	+ 1.01	+ 1.87	14.6	+ 0.56	- 0.67

DIRECTION AND INTENSITY OF THE WIND IN 1856, COMPARED WITH THE
VALUES DEDUCED FROM 25 YEARS' OBSERVATION.

Month.	Direction of Wind, reckoned from N. towards E.			Intensity.		W E		S N	
	Normal.	1856.	Excess in 1856.	Normal.	1856.	Normal.	1856.	Normal.	1856.
	°	°	°						
January ...	230	252	+ 22	0.167	0.081	1.49	1.32	1.42	1.05
February...	242	239	- 3	.337	.169	2.27	1.83	1.60	1.48
March.....	259	39	+ 140	.147	.716	1.56	0.17	1.04	0.12
April	342	261	- 81	.074	.069	1.02	1.20	0.83	1.02
May	339	313	- 26	.078	.306	1.06	2.57	0.81	0.67
June	244	278	+ 34	.289	.635	2.34	46.00	1.55	0.82
July	248	270	+ 22	.383	.619	3.12	15.33	1.74	1.09
August.....	247	293	+ 46	.383	.106	3.05	1.27	1.75	0.84
September	241	284	+ 43	.191	.365	1.68	3.47	1.26	0.68
October....	239	19	+ 140	.309	.252	2.42	0.54	1.75	0.48
November..	222	310	+ 88	.292	.576	1.93	12.40	1.95	inf.
December..	227	259	+ 32	.259	.460	1.92	8.11	1.77	1.46
Year.....	244	300	+ 56	0.219	0.242	1.86	2.04	1.40	0.73

PRESSURE OF DRY AIR UNDER DIFFERENT WINDS.

NORTH.						NORTH EAST.					
Mean Date.	Mean Barom.	Force of Vapour.	Reduction to Annual Pressure.	Mean Ann. Pressure of Dry Air	No. of Obs.	Mean Date.	Mean Barom.	Force of Vapour.	Reduction to Annual Pressure.	Mean Ann. Pressure of Dry Air	No. of Obs.
1856.	Inches.	Inches.	Inches.	Inches.		1856.	Inches.	Inches.	Inches.	Inches.	
Jan. 11	29.66	— 0.18	— 0.11	29.38	5	Jan. 14	29.15	— 0.17	— 0.11	28.87	3
Feb. 26	30.14	— 0.23	— 0.07	29.84	2	Feb. 21	29.81	— 0.20	— 0.07	29.54	6
March 13	30.04	— 0.24	— 0.06	29.74	9	March 14	30.05	— 0.20	— 0.05	29.80	10
April 21	29.78	— 0.22	— 0.04	29.52	7	April 19	29.88	— 0.21	— 0.04	29.63	6
May 12	29.77	— 0.25	— 0.01	29.51	13	May 18	29.68	— 0.28	0.00	29.40	6
June 20	29.90	— 0.32	+ 0.09	29.67	6	June ...	.....	.....	.....	.....	...
July 12	30.00	— 0.39	+ 0.12	29.73	3	July 31	30.04	— 0.54	+ 0.12	29.62	1
Aug. 13	29.65	— 0.42	+ 0.08	29.31	5	Aug. 12	29.67	— 0.42	+ 0.08	29.33	7
Sept. 13	29.89	— 0.31	+ 0.05	29.63	5	Sept. 11	29.97	— 0.42	+ 0.05	29.60	3
Oct. 13	29.96	— 0.34	+ 0.01	29.63	10	Oct. 13	30.05	— 0.29	+ 0.02	29.78	13
Nov. 17	29.75	— 0.20	— 0.01	29.54	8	Nov. 13	30.10	— 0.20	— 0.01	29.89	3
Dec. 20	29.56	— 0.19	— 0.07	29.30	3	Dec. 23	29.83	— 0.28	— 0.07	29.48	1
Mean ...	29.847	— 0.274	— 0.005	29.568	76	Mean ...	29.874	— 0.272	— 0.008	29.594	59
EAST.						SOUTH EAST.					
Mean Date.	Mean Barom.	Force of Vapour.	Reduction to Annual Pressure.	Mean Ann. Pressure of Dry Air	No. of Obs.	Mean Date.	Mean Barom.	Force of Vapour.	Reduction to Annual Pressure.	Mean Ann. Pressure of Dry Air	No. of Obs.
1856.	Inches.	Inches.	Inches.	Inches.		1856.	Inches.	Inches.	Inches.	Inches.	
Jan. 9	29.35	— 0.20	— 0.11	29.04	3	Jan. 3	29.47	— 0.26	— 0.10	29.11	4
Feb. 21	29.89	— 0.24	— 0.07	29.58	3	Feb. 8	29.69	— 0.26	— 0.08	29.35	2
March 20	29.87	— 0.17	— 0.05	29.65	11	March 30	30.09	— 0.19	— 0.05	29.85	1
April 23	29.78	— 0.24	— 0.04	29.50	2	April 22	29.85	— 0.23	— 0.03	29.59	1
May ...	.....	.....	.....	.....	...	May 6	29.67	— 0.20	0.00	29.47	1
June ...	.....	.....	.....	.....	...	June ...	.....	.....	.....	.....	...
July ...	.....	.....	.....	.....	...	July ...	.....	.....	.....	.....	...
Aug. 14	29.70	— 0.43	+ 0.08	29.35	5	Aug. 21	29.06	— 0.44	+ 0.07	28.69	1
Sept. 12	29.50	— 0.40	+ 0.05	29.15	4	Sept. ...	.....	.....	.....	.....	...
Oct. 21	29.94	— 0.30	+ 0.01	29.65	3	Oct. 22	30.09	— 0.36	+ 0.01	29.74	2
Nov. ...	.....	.....	.....	.....	...	Nov. ...	.....	.....	.....	.....	...
Dec. ...	.....	.....	.....	.....	...	Dec. 11	28.99	— 0.34	— 0.06	28.59	2
Mean ...	29.748	— 0.269	— 0.017	29.462	31	Mean ...	29.578	— 0.287	— 0.048	29.243	14

PRESSURE OF DRY AIR UNDER DIFFERENT WINDS.

SOUTH.						SOUTH WEST.					
Mean Date.	Mean Barom.	Force of Vapour.	Reduction to Annual Pressure.	Mean Ann. Pressure of Dry Air	No. of Obs.	Mean Date.	Mean Barom.	Force of Vapour.	Reduction to Annual Pressure.	Mean Ann. Pressure of Dry Air	No. of Obs.
1856.	Inches.	Inches.	Inches.	Inches.		1856.	Inches.	Inches.	Inches.	Inches.	
Jan. 14	29.36	— 0.25	— 0.11	29.00	8	Jan. 20	29.13	— 0.28	— 0.11	28.74	6
Feb. 11	29.63	— 0.30	— 0.08	29.25	6	Feb. 11	29.74	— 0.32	— 0.08	29.34	9
March 31	29.95	— 0.18	— 0.05	29.72	1	March...	.....	.....	.....	.....	...
April 6	29.33	— 0.29	— 0.05	28.99	5	April 10	29.36	— 0.26	— 0.04	29.06	9
May 23	29.35	— 0.33	0.00	29.02	1	May 21	29.50	— 0.33	0.00	29.17	11
June 15	29.64	— 0.37	+ 0.08	29.35	2	June 13	29.88	— 0.43	+ 0.08	29.53	7
July 17	29.67	— 0.44	+ 0.12	29.35	3	July 15	29.72	— 0.42	+ 0.12	29.42	9
Aug. 13	29.50	— 0.46	+ 0.08	29.12	4	Aug. 17	29.66	— 0.45	+ 0.08	29.29	6
Sept. 6	29.83	— 0.36	+ 0.05	29.52	2	Sept. 20	29.42	— 0.34	+ 0.04	29.12	6
Oct. 12	29.78	— 0.36	+ 0.02	29.44	5	Oct. 6	29.51	— 0.37	+ 0.02	29.16	4
Nov. ...	.....	.....	.....	.....	...	Nov. ...	.....	.....	.....	.....	...
Dec. 11	29.08	— 0.33	— 0.05	28.70	4	Dec. 19	29.51	— 0.27	— 0.06	29.18	6
Mean ...	29.507	— 0.329	— 0.020	29.158	41	Mean ...	29.554	— 0.345	+ 0.005	29.214	73
WEST.						NORTH WEST.					
Mean Date.	Mean Barom.	Force of Vapour.	Reduction to Annual Pressure.	Mean Ann. Pressure of Dry Air	No. of Obs.	Mean Date.	Mean Barom.	Force of Vapour.	Reduction to Annual Pressure.	Mean Ann. Pressure of Dry Air	No. of Obs.
1856.	Inches.	Inches.	Inches.	Inches.		1856.	Inches.	Inches.	Inches.	Inches.	
Jan. 26	29.26	— 0.21	— 0.10	28.95	3	Jan. 27	29.54	— 0.18	— 0.10	29.36	5
Feb. 12	29.98	— 0.20	— 0.08	29.70	4	Feb. 25	30.14	— 0.24	— 0.07	29.83	4
March 8	30.17	— 0.24	— 0.06	29.87	1	March 14	29.84	— 0.28	— 0.06	29.50	2
April 14	29.22	— 0.30	— 0.04	28.88	3	April 29	29.43	— 0.25	— 0.03	29.15	2
May 20	29.56	— 0.30	+ 0.01	29.27	4	May 19	29.41	— 0.35	0.00	29.06	3
June 14	29.83	— 0.40	+ 0.08	29.51	15	June 20	29.92	— 0.40	+ 0.09	29.61	9
July 20	29.80	— 0.42	+ 0.12	29.50	14	July 12	29.70	— 0.40	+ 0.12	29.42	6
Aug. 20	29.75	— 0.41	+ 0.08	29.42	8	Aug. 23	29.93	— 0.32	+ 0.07	29.68	1
Sept. 20	29.41	— 0.34	+ 0.04	29.11	11	Sept. 14	29.90	— 0.31	+ 0.05	29.64	6
Oct. 15	29.99	— 0.34	+ 0.02	29.67	5	Oct. ...	.....	.....	.....	.....	...
Nov. 22	29.80	— 0.24	— 0.02	29.54	12	Nov. 19	29.80	— 0.23	— 0.02	29.55	9
Dec. 17	29.77	— 0.24	— 0.06	29.47	14	Dec. 22	29.37	— 0.17	— 0.07	29.13	4
Mean ...	29.726	— 0.324	+ 0.023	29.425	94	Mean ...	29.757	— 0.290	+ 0.008	29.475	51

TEMPERATURE UNDER DIFFERENT WINDS.

NORTH.					NORTH EAST.				
Mean Date.	Mean Temperature.	Reduction to Annual Temperature.	Mean Annual Temperature.	No. of Obs.	Mean Date.	Mean Temperature.	Reduction to Annual Temperature.	Mean Annual Temperature.	No. of Obs.
1856.	°	°	°		1856.	°	°	°	
January 11	32.8	+ 12.5	45.3	5	January 14	35.7	+ 12.5	48.2	3
February 26	43.0	+ 8.8	51.8	2	February 21	35.0	+ 9.1	44.1	6
March 13	41.0	+ 7.4	48.4	9	March 14	36.7	+ 7.4	44.1	10
April 21	43.4	+ 0.9	44.3	7	April 19	42.5	+ 2.3	44.8	6
May 12	45.8	— 3.3	42.5	13	May 18	45.6	— 4.2	41.4	6
June 20	56.6	— 10.7	45.9	6	June ...	.....	.....	.....	...
July 12	60.7	— 11.7	49.0	3	July 31	68.6	— 12.6	56.0	1
August 13	59.9	— 12.2	47.7	5	August 12	61.8	— 12.2	49.6	7
Septem. 13	52.2	— 7.0	45.2	5	Septem. 11	60.3	— 7.8	52.5	3
October 13	51.9	— 1.2	50.7	10	October 13	47.1	+ 0.2	47.3	13
Novem. 17	39.7	+ 6.6	46.3	8	Novem. 13	38.4	+ 5.8	44.2	3
Decem. 20	36.3	+ 9.3	45.6	3	Decem. 23	37.6	+ 10.1	47.7	1
Mean	46.6	+ 0.2	46.4	76	Mean	45.1	+ 1.1	46.2	59
EAST.					SOUTH EAST.				
Mean Date.	Mean Temperature.	Reduction to Annual Temperature.	Mean Annual Temperature.	No. of Obs.	Mean Date.	Mean Temperature.	Reduction to Annual Temperature.	Mean Annual Temperature.	No. of Obs.
1856.	°	°	°		1856.	°	°	°	
January 9	39.0	+ 12.4	51.4	3	January 3	44.3	+ 11.9	56.2	4
February 21	41.8	+ 9.1	50.9	3	February 8	40.6	+ 9.8	50.4	2
March 20	37.7	+ 6.9	44.6	11	March 30	35.6	+ 5.6	41.2	1
April 23	49.2	+ 0.9	50.1	2	April 22	49.6	+ 0.9	50.5	1
May ...	.....	.....	.....	...	May 6	42.7	— 2.6	40.1	1
June ...	.....	.....	.....	...	June ...	.....	.....	.....	...
July ...	.....	.....	.....	...	July ...	.....	.....	.....	...
August 14	65.0	— 11.6	53.4	5	August 21	60.5	— 10.7	49.8	1
Septem. 12	56.3	— 7.8	48.5	3	Septem. ...	.....	.....	.....	...
October 21	47.3	+ 1.3	48.6	4	October 22	49.1	+ 1.3	50.4	2
Novem. ...	.....	.....	.....	...	Novem. ...	.....	.....	.....	...
Decem. ...	.....	.....	.....	...	Decem. 11	48.9	+ 7.9	56.8	2
Mean	45.8	+ 2.4	48.2	31	Mean	45.9	+ 5.6	51.5	14

TEMPERATURE UNDER DIFFERENT WINDS.

SOUTH.					SOUTH WEST.				
Mean Date.	Mean Temperature.	Reduction to Annual Temperature.	Mean Annual Temperature.	No. of Obs.	Mean Date.	Mean Temperature.	Reduction to Annual Temperature.	Mean Annual Temperature.	No. of Obs.
1856.	°	°	°		1856.	°	°	°	
January 14	43.7	+ 12.5	56.2	8	January 20	47.3	+ 11.2	58.5	6
February 11	46.2	+ 9.7	55.9	6	February 11	48.5	+ 9.7	58.2	9
March 31	38.6	+ 5.6	44.2	1	March ...	.....	.....	.....	...
April 6	49.0	+ 4.1	53.1	5	April 10	49.4	+ 4.1	53.5	9
May 23	53.4	— 5.0	48.4	1	May 21	53.0	— 5.0	48.0	11
June 15	55.8	— 10.4	45.4	2	June 13	59.8	— 9.6	50.2	7
July 17	65.0	— 12.0	53.0	3	July 15	61.9	— 12.0	49.9	9
August 13	66.2	— 12.2	54.0	4	August 17	63.0	— 11.6	51.4	6
Septem. 6	56.1	— 8.5	47.6	2	Septem. 20	53.6	— 6.2	47.4	6
October 12	54.0	— 3.5	50.5	5	October 6	55.5	— 3.5	52.0	4
Novem. ...	.....	.....	.....	...	Novem. ...	.....	.....	.....	...
Decem. 11	49.1	+ 8.0	57.1	4	Decem. 19	44.3	+ 9.3	53.6	6
Mean	51.5	+ 1.8	53.3	41	Mean	53.6	— 1.4	52.2	73
WEST.					NORTH WEST.				
Mean Date.	Mean Temperature.	Reduction to Annual Temperature.	Mean Annual Temperature.	No. of Obs.	Mean Date.	Mean Temperature.	Reduction to Annual Temperature.	Mean Annual Temperature.	No. of Obs.
1856.	°	°	°		1857.	°	°	°	
January 26	40.6	+ 10.4	51.0	3	January 27	35.7	+ 10.0	45.7	5
February 12	34.0	+ 9.7	43.7	4	February 25	42.2	+ 8.8	51.0	4
March 8	39.3	+ 8.0	47.3	1	March 14	43.6	+ 7.4	51.0	2
April 14	50.0	+ 3.5	53.5	3	April 29	42.2	— 0.4	41.8	2
May 20	52.1	— 4.2	47.9	4	May 19	52.5	— 4.2	48.3	3
June 14	57.7	— 9.6	48.1	15	June 20	58.8	— 10.7	47.1	9
July 20	61.4	— 12.3	49.1	14	July 12	59.5	— 11.7	47.8	6
August 20	62.9	— 11.6	51.3	8	August 23	52.7	— 10.7	42.0	1
Septem. 20	53.6	— 6.2	47.4	11	Septem. 14	53.5	— 7.0	46.5	6
October 15	51.4	— 1.2	50.2	5	October ...	.....	.....	.....	...
Nov. 22	43.4	+ 7.4	50.8	12	Novem. 19	42.2	+ 6.6	48.8	9
Dec. 17	40.5	+ 9.3	49.8	14	Decem. 22	30.9	+ 10.1	41.0	4
Mean	51.6	— 1.9	49.7	94	Mean	47.6	— 0.6	47.0	51

ESTIMATED AMOUNT OF WIND AND CLOUD UNDER DIFFERENT WINDS.

Mean Date.	NORTH.			NORTH EAST.			EAST.			SOUTH EAST.		
	Wind.	Cloud.	Obs.	Wind.	Cloud.	Obs.	Wind.	Cloud.	Obs.	Wind.	Cloud.	Obs.
1856.												
January	1.2	5.2	5	2.1	8.3	3	1.2	7.0	3	1.3	9.5	4
February.....	0.8	8.2	2	1.9	8.4	6	1.2	6.2	3	1.4	7.4	2
March.....	1.1	9.9	9	2.4	8.1	10	2.3	6.5	11	0.3	0.0	1
April.....	1.8	6.8	7	2.8	5.4	6	0.9	7.4	2	1.0	8.7	1
May.....	1.8	8.0	13	2.2	9.2	6	...	...	...	3.7	10.0	1
June	1.4	6.7	6	...	...	...	...	...	...	...	...	...
July	0.9	2.8	3	0.2	0.3	1	...	...	...	...	...	...
August	1.2	6.1	5	1.4	6.1	7	0.9	6.5	5	1.7	8.0	1
September	1.7	6.9	5	1.2	8.1	3	1.2	7.8	4	...	...	...
October	0.8	8.7	10	0.8	7.1	13	0.6	7.1	3	1.2	4.0	2
November.....	1.4	6.7	8	1.0	6.6	3	...	...	...	...	...	...
December	0.7	2.8	3	1.0	9.7	1	...	...	...	2.4	9.3	2
Mean	1.3	7.2	76	1.7	7.3	59	1.5	6.8	31	1.6	7.6	14
Mean Date.	SOUTH.			SOUTH WEST.			WEST.			NORTH WEST.		
	Wind.	Cloud.	Obs.	Wind.	Cloud.	Obs.	Wind.	Cloud.	Obs.	Wind.	Cloud.	Obs.
1856.												
January	1.2	9.5	8	2.2	9.0	6	2.1	5.3	3	1.2	4.3	5
February.....	1.5	9.2	6	2.3	8.4	9	0.8	7.8	4	1.3	8.9	4
March.....	1.0	0.0	1	...	...	...	0.5	0.0	1	1.1	10.0	2
April.....	2.8	9.5	5	2.4	6.3	9	2.5	7.2	3	1.1	9.8	2
May.....	1.0	9.7	1	1.7	8.9	11	1.4	7.6	4	0.8	8.0	3
June	1.2	8.7	2	1.6	8.3	7	1.4	6.6	15	1.0	5.7	9
July	1.3	5.7	3	1.9	7.8	9	1.5	7.6	14	1.8	9.0	6
August	1.3	8.0	4	1.4	6.8	6	1.7	6.9	8	0.0	7.7	1
September	1.0	5.2	2	1.7	6.7	6	1.8	7.7	11	1.3	6.1	6
October	1.6	7.9	5	1.7	7.8	4	0.8	7.9	5	...	...	...
November .....	...	...	...	...	...	...	1.2	6.9	12	1.4	6.2	9
December	2.4	9.0	4	1.5	8.4	6	1.4	8.4	14	0.9	5.6	4
Mean	1.6	8.3	41	1.9	7.9	73	1.5	7.3	94	1.2	6.8	51

FALL OF RAIN UNDER DIFFERENT WINDS.

Mean Date.	NORTH.		NORTH EAST.		EAST.		SOUTH EAST.	
	Rain.	Days.	Rain.	Days.	Rain.	Days.	Rain.	Days.
1856.	Inches.		Inches.		Inches.		Inches.	
January	0.17	1.25	0.50	2.75	0.10	0.75	0.41	2.75
February	0.03	0.25	0.07	0.75	.....	.....	0.12	0.50
March	0.01	1.00	0.01	0.75	0.59	1.25	0.13	0.25
April	0.13	2.50	0.35	1.00	.....	.....	0.01	0.25
May	0.67	3.00	0.20	1.50	.....	.....	0.04	0.50
June	0.75	1.25	.....	.....	.....	.....	...	...
July	0.12	0.75	.....	.....	.....	.....	...	...
August	0.87	2.25	0.56	2.25	0.24	0.75	0.04	0.50
September	0.34	2.00	.....	.....	0.53	2.50	...	...
October	0.38	5.25	0.38	4.50	0.09	0.50	0.10	1.25
November	0.31	5.25	0.01	0.25	.....	.....	...	...
December	0.01	0.25	0.05	1.25	.....	.....	0.13	0.75
Mean	3.79	25.00	2.13	15.00	1.55	5.75	0.98	6.75

Mean Date.	SOUTH.		SOUTH WEST.		WEST.		NORTH WEST.	
	Rain.	Days.	Rain.	Days.	Rain.	Days.	Rain.	Days.
1856.	Inches.		Inches.		Inches.		Inches.	
January	0.35	4.25	0.90	5.00	0.14	1.50	0.38	1.75
February	0.59	2.25	0.51	3.25	...	...	...	...
March .....	.....	.....	...	...	0.19	0.50	...	...
April	0.79	4.25	0.84	3.75	0.42	1.75	0.01	0.50
May	0.30	1.75	2.46	7.25	0.45	2.50	0.22	1.50
June	0.74	1.00	0.60	2.50	0.35	2.50	0.11	0.75
July .....	.....	.....	0.26	3.75	0.12	3.50	0.12	1.00
August	0.95	2.50	0.18	1.50	0.38	4.00	0.02	0.25
September .....	.....	.....	0.54	2.50	1.71	4.50	0.04	0.50
October	0.79	3.00	0.42	2.00	0.21	2.50	...	...
November .....	.....	.....	...	...	0.53	5.00	0.10	2.50
December	0.62	3.50	0.64	4.50	0.60	4.75	...	...
Mean	5.13	22.50	7.35	36.00	5.10	33.00	1.00	8.75

NORMAL MEAN TEMPERATURE OF EVERY 5 DAYS COMPARED WITH
THE SAME IN 1856.

Month.	Temperature.		Excess in 1856.	Month.	Temperature.		Excess in 1856.
	Normal.	1856.			Normal.	1856.	
	°	°	°		°	°	°
January 1—5	36.7	44.6	+ 7.9	July 5—9	60.0	56.5	— 3.5
6—10	36.2	39.8	+ 3.6	10—14	60.3	59.9	— 0.4
11—15	36.1	29.2	— 6.9	15—19	60.6	60.4	— 0.2
16—20	37.4	46.4	+ 9.0	20—24	60.9	65.9	+ 5.0
21—25	38.2	44.8	+ 6.6	25—29	61.0	61.9	+ 0.9
26—30	38.6	35.7	— 2.9	30—3	61.2	70.7	+ 9.5
31—4	38.7	33.0	— 5.7	August 4—8	61.0	64.4	+ 3.4
February 5—9	38.8	49.3	+ 10.5	9—13	60.8	68.0	+ 7.2
10—14	38.9	48.4	+ 9.5	14—18	60.2	59.2	— 1.0
15—19	39.0	38.1	— 0.9	19—23	59.3	56.7	— 2.6
20—24	39.5	35.0	— 4.5	24—28	58.5	60.4	+ 1.9
25—1	39.8	44.4	+ 4.6	29—2	57.8	57.5	— 0.3
March 2—6	40.0	39.8	— 0.2	September 3—7	57.1	55.1	— 2.0
7—11	40.6	38.9	— 1.7	8—12	56.4	58.6	+ 2.2
12—16	41.2	34.6	— 6.6	13—17	55.6	56.0	+ 0.4
17—21	41.7	45.4	+ 3.7	18—22	54.8	50.8	— 4.0
22—26	42.3	38.2	— 4.1	23—27	53.9	52.3	— 1.6
27—31	43.0	36.5	— 6.5	28—2	53.1	53.8	+ 0.7
April 1—5	43.8	48.8	+ 5.0	October 3—7	52.1	55.1	+ 3.0
6—10	44.5	46.6	+ 2.1	8—12	50.8	52.2	+ 1.4
11—15	45.1	49.3	+ 4.2	13—17	49.8	51.9	+ 2.1
16—20	46.3	42.6	— 3.7	18—22	48.4	50.7	+ 2.3
21—25	47.7	49.8	+ 2.1	23—27	47.3	47.1	— 0.2
26—30	49.0	47.8	— 1.2	28—1	45.8	44.9	— 0.9
May 1—5	50.2	39.3	— 10.9	November 2—6	45.0	43.3	— 1.7
6—10	51.2	44.4	— 6.8	7—11	43.9	40.8	— 3.1
11—15	51.9	51.3	— 0.6	12—16	42.8	38.4	— 4.4
16—20	52.8	51.1	— 1.7	17—21	42.0	45.2	+ 3.2
21—25	53.6	54.7	+ 1.1	22—26	41.3	45.9	+ 4.6
26—30	55.0	52.7	— 2.3	27—1	41.0	32.3	— 8.7
31—4	56.1	53.0	— 3.1	December 2—6	40.9	37.4	— 3.5
June 5—9	57.4	57.6	+ 0.2	7—11	40.7	52.9	+ 12.2
10—14	58.2	56.7	— 1.5	12—16	40.3	40.2	— 0.1
15—19	59.0	54.8	— 4.2	17—21	39.3	41.8	+ 2.5
20—24	59.3	56.3	— 3.0	22—26	38.5	37.1	— 1.4
25—29	59.5	63.8	+ 4.3	27—31	37.8	35.1	— 2.7
30—4	59.8	56.6	— 3.2				

TABLE SHOWING THE OSCILLATIONS OF THE BAROMETER, IN THE YEAR 1856,
AMOUNTING TO 0.1 INCH, AND UPWARDS.

Month.	Day and Hour.	Barom.	Wind.	Month.	Day and Hour.	Barom.	Wind.
1855.	d. h.	Inches.		1856.	d. h.	Inches.	
December.	30 22	30.08	W—S	March.....	25 16	29.69	E
1856.					30 6	30.12	E—SE
January ...	3 0	29.32	SE—SSE	April	2 12	29.49	S
	4 10	29.48	SSE		3 4	29.64	S
	7 18	28.81	NE—NNW		4 0	29.39	S—SW
	13 10	30.52	NE		... 20	29.61	WSW—SW
	21 14	28.85	SSE		6 4	29.03	S
	22 18	29.27	NE—SW		7 12	29.34	WSW—WNW
	23 6	29.02	SW		8 14	28.95	SSW
	... 18	29.21	SW		9 6	29.12	SSW—SW
	24 10	28.71	SW		10 6	28.95	WSW
	26 10	29.34	SSW		11 8	29.48	WSW—SW
	... 20	29.22	WNW—NW		12 4	29.19	S—SW
	27 20	29.65	NNW—W		16 22	30.03	NNE—NE
	28 16	29.44	W—WNW		18 18	29.89	N
February...	1 0	30.05	NW—W		20 8	30.15	NNE—NE
	4 16	29.76	SSW—SW		23 16	29.69	E
	5 10	29.98	SW		27 4	29.26	W—NE
	6 20	29.38	SSW—SW		30 10	29.48	WNW
	8 22	29.86	SW—SSW		... 22	29.35	NNE—NE
	9 16	29.69	SW—SSW	May	4 0	30.02	N
	10 8	29.79	SW—SSW		7 4	29.28	SE—NE
	12 18	29.46	SSW—SE		9 10	30.05	N
	13 6	29.61	SSW—SE		15 20	29.24	WSW—NW
	... 18	29.41	S—SSW		17 22	29.46	WSW—SW
	17 8	29.71	ESE—E		18 12	29.21	SW—WSW
	19 0	29.56	NE		20 8	29.90	WNW—W
	22 0	29.96	NNE—W		23 16	29.28	SSW—SW
	22 18	29.81	NW—N		26 8	29.71	WNW—SW
	25 10	30.35	SW		28 4	29.38	SW—WNW
	26 6	30.17	WSW—WNW		30 6	29.99	NNE—ENE
March.....	1 10	30.45	ENE	June	1 4	29.52	N—W
	6 16	30.00	NNE—NE		7 6	30.13	NNW—SW
	7 22	30.22	ENE—WSW		14 0	29.29	SW—W
	12 4	29.78	E—NE		16 8	29.99	W—SW
	14 20	30.02	NE—E		19 18	29.29	S—N
	19 2	29.56	E—WNW		21 10	29.89	WSW
	23 10	30.05	NE		22 4	29.74	W

TABLE SHOWING THE OSCILLATIONS OF THE BAROMETER, IN THE YEAR 1856,
AMOUNTING TO 0.1 INCH, AND UPWARDS. (Continued.)

Month.	Day and Hour.	Barom.	Wind.	Month.	Day and Hour.	Barom.	Wind.
1856.	d. h.	Inches.		1856.	d. h.	Inches.	
June	26 6	30.08	NW—W	September.	26 8	29.42	SW
	27 18	29.88	W—N		28 4	28.61	E
	29 10	30.11	N	October....	1 8	29.66	W
	30 12	29.86	NNW		2 6	29.54	SSE
July	3 6	30.06	ENE—NNE		3 0	29.64	SSE
	8 4	29.11	SW—WNW		4 6	29.39	S
	10 20	29.76	W—SW		6 10	29.82	N
	12 16	29.61	SW		7 2	29.72	ENE
	14 22	29.83	SW—S		9 20	30.08	N
	16 6	29.56	WSW		11 16	29.83	NNE
	17 8	29.94	W		13 8	30.04	NNE
	24 2	29.40	S		15 14	29.11	S
	27 8	29.93	WSW		18 8	30.16	W
	28 4	29.79	SSE		20 14	29.99	NE
	30 22	30.09	WSW		24 22	30.35	NE
August....	2 18	29.83	E		31 4	29.84	SSE
	5 8	30.08	NE	November.	1 18	30.22	NNW
	8 18	29.44	S		3 4	30.01	NNW
	13 6	29.79	WSW		7 10	30.46	NE
	14 14	29.65	WSW		11 6	29.24	NNW
	16 0	29.82	SW		13 10	29.75	WNW
	18 16	29.28	NE		14 2	29.64	W
	20 0	29.48	NE		15 10	29.92	WNW
	21 4	28.92	SE		... 20	29.79	WSW
	23 20	29.96	SW		16 18	30.10	NNE
	25 20	29.64	SW		18 6	29.89	W
	26 16	29.79	W		18 20	30.03	N
	28 16	29.51	WSW		20 6	29.88	W
	30 4	29.99	NNW		21 22	30.12	WNW
September.	1 18	29.55	WSW		24 6	29.66	W
	3 8	30.10	N		25 18	29.91	N
	6 16	29.51	ENE		26 12	29.39	W
	11 20	30.02	NNE	December.	1 0	29.83	NW
	13 14	29.86	NW		3 12	29.59	SW
	14 20	30.06	NW		4 10	29.93	SW
	18 0	29.61	WSW		6 0	29.09	WSW
	20 22	29.99	NW		7 12	29.35	WSW
	24 18	28.90	S		8 22	29.18	WSW

TABLE SHOWING THE OSCILLATIONS OF THE BAROMETER, IN THE YEAR 1856, AMOUNTING TO 0.1 INCH, AND UPWARDS. (Continued.)

Month.	Day and Hour.	Barom.	Wind.	Month.	Day and Hour.	Barom.	Wind.
1856.	d. h.	Inches.		1856.	d. h.	Inches.	
December.	9 6	29.33	W S W	December.	18 8	29.71	S W
	10 14	29.07	W S W		21 10	30.30	W S W
	11 10	29.34	S S W		22 22	29.76	W S W
	11 22	28.97	W		23 10	29.92	N E
	12 10	29.14	S S W		26 6	28.67	W
	13 10	28.70	W		31 2	30.07	W S W
	16 10	30.42	N N W				

TABLE SHOWING THE CHANGES IN THE DIRECTION OF THE WIND, AMOUNTING TO 45°. FROM JULY 16 TO DECEMBER 31.

	Period.		Obs.	Direction of Wind.		Direction of Change.	Horizontal Distance travelled.	Barom. at the end of Period.	Highest or Lowest Barometer during the Period.	
1856.	d. h.	d. h.		By Scale.	Approx. Point.		Miles.	Inches.	d. h.	Inches.
July.....	16 0 to	16 4	3	7.7	S	...	6	29.58	16 0	29.62
	16 6	20 14	53	11.4	W S W	+	772	29.78	17 8	29.94
	20 16	21 8	9	0.0	N	+	17	29.85	.....	.....
	21 10	22 16	16	12.0	W	-	48	29.66	.....	.....
	22 18	24 6	19	7.5	S	-	102	29.41	.....	.....
	24 8	28 0	45	11.3	W S W	+	386	29.85	27 8	29.93
	28 2	28 8	4	8.3	S	-	0	29.81	.....	.....
	28 10	28 14	3	10.7	W S W	+	10	29.83	28 4	29.79
	28 16	29 8	9	0.0	N	+	28	30.00	.....	.....
	29 10	31 14	27	11.2	W S W	-	142	30.03	30 8	30.10
August..	31 16	1 8	9	15.5	N	+	0	30.00	1 0	30.03
	1 10	5 10	49	3.1	E N E	+	215	30.05	2 18	29.83
	5 12	7 12	25	0.0	N	-	96	29.79	.....	.....
	7 14	8 8	10	11.5	W S W	-	29	29.54	.....	.....
	8 10	9 0	8	8.0	S	-	69	29.49	8 18	29.44
	9 2	10 12	18	10.0	S W	+	108	29.65	.....	.....
	10 14	11 6	9	7.5	S	-	39	29.62	11 2	29.58
	11 8	16 8	34	10.6	W S W	+	509	29.78	11 14	29.58
	16 10	21 2	57	2.0	N E	+	788	28.98	.....	.....
	21 4	22 6	14	7.3	S S E	+	129	29.38	.....	.....
	22 8	23 14	16	15.4	N N W	+	106	29.96	.....	.....

TABLE OF THE CHANGES OF THE WIND. (Continued.)

	Period.		Obs.	Direction of Wind.		Direction of Change.	Horizon- tal Distance travelled.	Barom. at the end of Period.	Highest or Lowest Barometer during the Period.	
	d. h.	d. h.		By Scale.	Approx. Point.		Miles.	Inches.	d. h.	Inches.
1856.										
August..	23 16	to 29 18	66	11.0	W S W	—	862	29.88	28 16	29.51
	29 20	30 8	7	15.2	N N W	+	8	29.99	.....	.....
	30 10	1 20	30	10.9	W S W	—	180	29.56	.....	.....
Sept.....	1 22	3 10	19	15.7	N	+	91	30.10	.....	.....
	3 12	4 8	11	12.1	W	—	29	30.02	.....	.....
	4 10	4 16	4	7.1	S S E	—	39	29.90	.....	.....
	4 18	8 10	45	3.5	E	—	167	29.75	5 16	29.51
	8 12	9 8	11	12.5	W	+	13	29.72	.....	.....
	9 10	9 14	3	7.5	S	—	19	29.68	.....	.....
	9 16	10 0	5	4.3	E	—	14	29.69	.....	.....
	10 2	13 4	38	1.7	N E	—	250	29.92	11 20	30.02
	13 6	15 0	21	13.9	N W	—	96	30.06	.....	.....
	15 2	18 0	36	11.6	W	—	466	29.61	.....	.....
	18 2	21 2	37	13.7	N W	+	302	29.96	20 22	29.99
	21 4	24 12	41	11.1	W S W	—	481	28.99	23 8	28.97
	24 14	25 0	6	8.3	S	—	26	28.93	24 8	28.90
	25 2	26 14	19	11.1	W S W	+	240	29.35	26 8	29.42
	26 16	27 2	6	6.7	S S E	—	55	29.05	.....	.....
	27 4	27 10	4	3.7	E	—	59	28.82	.....	.....
	27 12	27 16	3	10.5	S W	+	13	28.82	.....	.....
	27 18	28 8	8	3.3	E N E	—	62	28.63	.....	.....
	28 10	28 12	2	0.3	N	—	17	28.68	.....	.....
	28 14	1 8	29	11.4	W S W	+	352	29.66	.....	.....
October.	1 10	4 6	35	7.2	S S E	—	332	29.39	2 8	29.55
	4 8	6 8	25	9.5	S W	+	124	29.78	.....	.....
	6 10	14 6	95	1.0	N N E	+	493	29.82	9 22	30.08
	14 8	14 16	5	3.8	E	+	27	29.61	14 14	29.66
	14 18	15 14	11	7.2	S S E	+	133	29.11	.....	.....
	15 16	19 14	48	11.5	W	+	328	30.10	17 10	30.16
	19 16	20 10	10	0.0	N	+	56	30.03	.....	.....
	20 12	21 12	13	2.2	N E	+	42	30.06	.....	.....
	21 14	23 4	19	7.1	S S E	+	52	30.15	.....	.....
	23 6	24 0	10	10.5	S W	+	33	30.23	.....	.....
	24 2	30 10	77	2.4	N E	+	252	30.00	24 22	30.35
	30 12	31 14	14	7.2	S S E	+	90	29.98	31 6	29.85
	31 16	6 12	71	14.6	N N W	+	187	30.33	.....	.....

TABLE OF THE CHANGES OF THE WIND. (*Continued.*)

	Period.		Obs.	Direction of Wind.		Direction of Change.	Horizon- tal Distance travelled.	Barom. at the end of Period.	Highest or Lowest Barometer during the Period.	
	d. h.	d. h.		By Scale.	Approx. Point.		Miles.	Inches.	d. h.	Inches.
1856.										
Novem..	6 14	to 8 10	30	2.6	E N E	+	120	30.21	7 10	30.46
	8 12	10 8	23	12.6	W N W	+	198	29.42	.....	.....
	10 10	13 6	35	15.0	N N W	+	443	29.70	.....	.....
	13 8	14 4	11	12.1	W	—	126	29.63	.....	.....
	14 6	15 10	15	14.2	N W	+	135	29.63	.....	.....
	15 12	15 22	6	11.5	W	—	98	29.81	15 20	29.79
	16 0	18 0	25	1.0	N N E	+	62	29.94	16 18	30.09
	18 2	18 10	5	12.2	W	+	28	29.94	18 6	29.89
	18 12	19 8	11	15.4	N N W	+	70	29.92	18 22	30.03
	19 10	24 22	69	12.3	W	—	1011	29.73	24 8	29.66
	25 0	25 22	12	14.8	N N W	+	126	29.88	25 18	29.91
	26 0	26 12	7	9.5	S W	—	54	29.39	.....	.....
	26 14	26 22	5	2.0	N E	—	31	29.49	.....	.....
	27 0	28 16	21	12.5	W	+	183	29.53	27 4	29.46
	28 18	29 4	6	0.5	N	+	31	29.55	.....	.....
	29 6	30 8	14	12.2	W	—	88	29.63	.....	.....
	30 10	1 14	15	15.0	N N W	+	139	29.76	1 0	29.83
Decem..	1 16	4 16	37	11.0	W S W	—	193	29.82	3 6	29.60
	4 18	5 12	10	7.6	S	—	74	29.39	.....	.....
	5 14	7 22	29	10.8	W S W	+	774	29.32	6 0	29.09
	8 0	13 12	66	8.3	S	—	1026	28.71	8 10	29.35
	13 14	17 6	45	14.8	N N W	+	237	30.29	16 10	30.42
	17 8	18 10	14	10.6	W S W	—	152	29.71	.....	.....
	18 12	19 10	12	15.5	N N W	+	126	30.25	.....	.....
	19 12	23 0	43	11.0	W S W	—	566	29.76	20 22	30.30
	23 2	24 4	14	1.3	N N E	+	98	29.43	23 10	29.92
	24 6	25 10	15	12.1	W	+	178	28.80	25 6	28.71
	25 12	26 2	8	0.7	N N E	+	43	28.72	.....	.....
	26 4	27 22	21	13.6	N W	—	154	29.25	26 6	28.67
	28 0	31 22	48	11.7	W	—	620	29.93	.....	.....

MAXIMUM READINGS OF A BLACK-BULB THERMOMETER EXPOSED TO THE SUN,
DURING THE YEAR 1856.

January.		February.		March.		April.		May.		June.	
1	.....	1	37.0	1	43.0	1	77.0	1	49.0	1	59.0
2	58.5	2	51.5	2	61.0	2	73.0	2	63.0	2	88.0
3	47.5	3	52.0	3	62.5	3	51.0	3	63.0	3	92.0
4	45.4	4	46.5	4	54.0	4	73.0	4	53.5	4	83.5
5	50.5	5	64.0	5	59.5	5	60.0	5	65.0	5	82.0
6	51.4	6	52.0	6	50.0	6	60.5	6	53.0	6	80.0
7	53.2	7	57.0	7	52.0	7	78.0	7	50.5	7	83.0
8	44.0	8	53.5	8	73.0	8	56.0	8	61.0	8	84.0
9	37.0	9	70.0	9	47.0	9	65.0	9	54.6	9	86.0
10	54.0	10	59.0	10	52.0	10	69.0	10	87.5	10	92.0
11	54.0	11	53.0	11	63.0	11	66.0	11	91.0	11	87.0
12	59.0	12	53.0	12	59.0	12	76.0	12	74.5	12	68.0
13	64.5	13	59.0	13	61.0	13	76.0	13	56.0	13	68.0
14	62.0	14	68.5	14	62.0	14	61.0	14	62.0	14	79.0
15	57.5	15	65.5	15	48.0	15	65.0	15	61.5	15	83.0
16	45.0	16	73.0	16	58.0	16	69.0	16	77.0	16	88.0
17	58.0	17	47.0	17	44.0	17	67.0	17	71.0	17	76.5
18	51.0	18	35.0	18	49.0	18	73.0	18	68.5	18	86.0
19	53.0	19	35.0	19	53.0	19	50.0	19	70.0	19	73.0
20	56.0	20	53.0	20	59.0	20	79.0	20	82.0	20	70.5
21	50.5	21	43.0	21	52.0	21	78.0	21	79.0	21	77.0
22	60.0	22	50.0	22	69.0	22	76.0	22	65.0	22	78.0
23	64.0	23	65.0	23	60.0	23	78.0	23	79.0	23	78.0
24	64.0	24	73.5	24	49.0	24	76.0	24	68.0	24	82.0
25	66.0	25	57.0	25	50.0	25	79.0	25	64.0	25	91.0
26	59.5	26	69.0	26	59.0	26	76.0	26	74.0	26	96.0
27	60.5	27	54.0	27	73.0	27	51.0	27	73.0	27	93.0
28	53.5	28	52.0	28	54.0	28	70.0	28	79.0	28	90.0
29	52.0	29	70.0	29	67.0	29	62.0	29	58.0	29	93.5
33	48.0			30	74.0	30	64.5	30	61.5	30	89.0
31	37.0			31	72.0			31	50.0		
Mean	53.9	...	55.8	...	57.7	...	68.5	...	57.1	...	82.5

MAXIMUM READINGS OF A BLACK-BULB THERMOMETER EXPOSED TO THE SUN,
DURING THE YEAR 1856.

July.		August.		September.		October.		November.		December.	
1	83.0	1	106.0	1	93.0	1	80.0	1	59.0	1	46.0
2	89.0	2	114.5	2	83.0	2	61.5	2	57.0	2	46.0
3	93.0	3	112.5	3	92.0	3	70.0	3	59.0	3	35.5
4	90.0	4	103.5	4	82.0	4	68.0	4	70.0	4	38.0
5	90.0	5	105.0	5	86.5	5	69.0	5	54.0	5	54.0
6	87.0	6	100.0	6	81.5	6	57.5	6	68.5	6	58.5
7	67.0	7	107.0	7	82.0	7	57.0	7	50.0	7	59.0
8	73.0	8	89.0	8	92.0	8	56.0	8	45.0	8	59.0
9	81.0	9	79.0	9	89.0	9	74.5	9	66.0	9	60.5
10	89.0	10	93.0	10	93.0	10	59.0	10	59.0	10	55.0
11	83.5	11	98.0	11	87.0	11	58.0	11	49.0	11	58.5
12	72.0	12	91.0	12	89.0	12	65.0	12	53.0	12	58.0
13	85.0	13	92.5	13	78.5	13	81.0	13	55.0	13	48.0
14	82.0	14	95.5	14	89.0	14	60.5	14	53.0	14	54.5
15	83.0	15	93.5	15	81.5	15	63.0	15	61.0	15	50.0
16	89.0	16	95.0	16	79.0	16	59.5	16	61.5	16	47.0
17	85.0	17	69.0	17	84.5	17	59.5	17	61.0	17	51.5
18	83.0	18	69.5	18	78.0	18	68.0	18	61.0	18	46.0
19	89.5	19	70.0	19	71.0	19	79.0	19	59.0	19	54.0
20	83.0	20	70.0	20	71.0	20	72.0	20	52.0	20	48.0
21	88.0	21	71.0	21	77.5	21	72.5	21	52.0	21	46.0
22	100.0	22	72.0	22	73.0	22	80.0	22	66.0	22	56.0
23	93.5	23	84.0	23	62.0	23	59.0	23	57.0	23	50.0
24	85.0	24	70.0	24	82.5	24	71.0	24	63.5	24	57.0
25	95.0	25	71.0	25	75.0	25	67.0	25	54.5	25	46.5
26	94.5	26	87.4	26	70.5	26	67.0	26	57.0	26	48.5
27	85.0	27	90.6	27	56.0	27	73.5	27	63.0	27	45.0
28	95.0	28	70.5	28	58.0	28	51.0 ¹	28	41.0	28	47.0
29	100.5	29	84.0	29	68.0	29	48.0	29	50.0	29	41.0
30	103.0	30	84.0	30	64.0	30	58.5	30	46.0	30	45.0
31	107.0	31	92.0			31	64.0			31	51.5
Mean	87.9	...	88.1	...	79.0	...	65.5	...	56.8	...	50.3

INDICATIONS OF SCHÖNBEIN'S OZONOMETER DURING THE YEAR 1856.

	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
Day.	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h	10 ^h	22 ^h
1856.																								
1	0	0	0	1	10	7	0	0	..	(8)	8	9	9	1	4	0	8	6	0	0	0	0	0	0
2	0	1	0	0	8	6	0	5	7	6	6	2	1	6	3	3	7	1	1	0	0	0	0	0
3	0	1	0	0	9	7	0	10	7	1	4	4	8	0	5	1	0	1	8	0	0	0	7	7
4	0	0	0	0	7	1	10	5	2	2	7	5	0	5	9	4	0	1	6	0	0	0	0	0
5	0	1	7	8	0	0	9	0	7	0	8	0	2	7	1	4	0	4	0	0	4	0	0	7
6	5	5	9	10	3	6	9	0	5	0	0	0	5	7	3	0	8	5	0	10	7	9	(9)	...
7	5	7	7	10	9	6	8	5	10	10	4	10	8	10	0	0	7	0	7	9	1	1	10	7
8	10	3	10	3	0	0	1	7	9	4	10	7	10	9	0	0	0	2	6	0	0	0	6	2
9	8	8	4	10	0	0	9	10	10	6	7	9	7	2	0	0	0	6	0	0	0	3	6	8
10	10	9	9	9	2	0	7	10	10	4	8	5	5	8	1	0	8	6	6	0	8	0	1	0
11	1	0	3	0	5	1	10	9	6	6	9	5	0	6	0	6	9	9	6	0	0	0	6	0
12	8	0	8	8	3	4	10	8	10	3	10	7	9	10	9	6	10	5	0	0	8	0	10	6
13	0	1	0	7	9	6	10	9	5	10	0	0	0	10	8	1	1	7	0	0	2	0	4	3
14	2	0	10	8	9	6	10	9	9	9	10	6	2	7	9	6	1	0	0	0	7	0	6	0
15	0	0	9	0	8	6	9	5	8	4	8	0	0	1	9	6	1	0	0	8	1	9	0	0
16	6	0	0	6	10	10	10	4	1	3	7	5	10	10	0	1	8	0	9	2	7	0	0	0
17	0	8	9	9	8	0	9	5	9	10	8	4	8	1	10	10	7	7	0	1	0	0	0	0
18	9	0	9	5	9	0	9	4	10	9	5	0	8	2	10	9	9	0	0	0	0	0	6	5
19	0	1	9	5	0	0	7	5	..	(8)	3	0	9	1	10	8	7	1	0	5	0	0	0	0
20	10	2	9	8	0	0	(7)	..	9	0	3	2	2	1	10	9	1	0	9	9	8	0	5	0
21	0	4	8	5	0	0	1	0	1	0	8	5	0	0	9	3	3	9	0	0	2	0	6	6
22	10	3	0	0	0	0	0	0	0	7	10	10	1	0	1	9	3	7	0	0	8	5	8	7
23	10	5	0	0	7	8	0	0	0	8	6	2	3	1	0	0	6	8	2	0	9	9	7	0
24	10	10	7	0	9	7	2	4	5	8	0	0	2	6	4	6	10	0	8	3	9	4	(3)	..
25	10	7	0	0	10	9	7	0	6	9	1	0	7	0	9	10	8	6	2	0	8	0	0	0
26	5	0	9	2	9	6	10	8	10	9	0	0	9	3	8	5	1	0	0	6	0	0	2	0
27	7	0	1	0	8	7	10	10	10	0	0	3	9	5	8	7	8	7	6	6	9	0	0	0
28	2	7	0	1	10	6	6	0	6	6	2	3	8	1	5	8	8	10	0	0	0	2	0	0
29	8	0	0	4	10	5	5	0	9	10	6	6	0	0	8	0	10	10	0	0	0	0	8	1
30	0	2	..	..	7	0	6	2	8	7	4	8	8	1	0	6	8	1	0	0	0	1	3	4
31	3	0	..	..	0	0	..	..	8	8	..	..	0	1	8	7	..	..	0	0	..	..	7	5
Sum	139	85	137	119	179	114	184	134	197	159	162	117	150	122	161	135	157	119	76	59	108	43	108	68
Mean	4.5	2.7	4.7	4.1	6.0	3.7	6.3	4.6	6.6	5.3	5.4	3.9	4.8	4.0	5.2	4.4	5.2	4.0	2.5	2.0	3.6	1.4	4.3	1.9



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